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ABSTRACT

The current status of education for 1991 is presented in two volumes in the form of education "indicators"--key data that measure the health of education, monitor important developments, and show trends in major aspects of education. The 30 indicators for elementary and secondary education in this volume have been grouped under the headings of student progression and outcomes; context; and resources. Outcome indicators include data on student beginnings, progress, and completion; student performance; economic outcomes of education; and participation in various curricula. Context indicators outline the size and growth of the schools; student characteristics; and the school climate. Resource indicators focus on data on fiscal characteristics of the schools, and selected characteristics of teachers and administration. Each indicator contains an introductory text, a few highlighted items, a text table, and charts related to the data. Also included are technical supporting data, supplemental information, data sources, an index, and a glossary. New indicators for elementary and secondary education include the following: (1) high school completion rates; (2) employment rates of recent high school graduates and dropouts; (3) mathematics and science course-taking patterns; (4) certification and education of public secondary school teachers; and (5) international comparisons of public expenditures for elementary and secondary education. (MLF)

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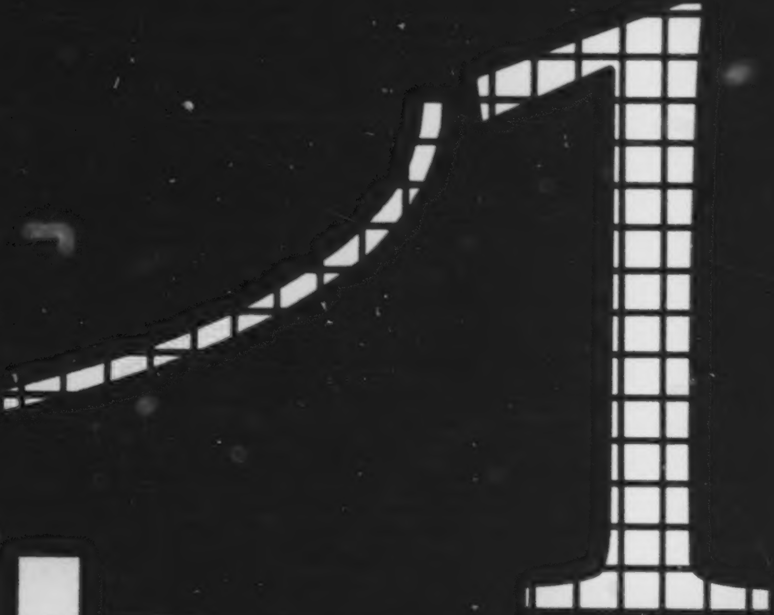
Volume 1

Elementary and Secondary Education



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EA 022 981

THE CONDITION OF EDUCATION
1991

Volume 1

Elementary and Secondary Education

Laurence T. Ogle
Nabeel Alsalam
Gayle Thompson Rogers

U.S. Department of Education
Lamar Alexander
Secretary

Office of Educational Research and Improvement
Bruno V. Manno
Acting Assistant Secretary

National Center for Education Statistics
Emerson J. Elliott
Acting Commissioner

Data Development Division
Jeanne E. Griffith, *Associate Commissioner*
Mary J. Frase, *Technical Planning Officer*

National Center for Education Statistics

"The purpose of the Center shall be to collect, and analyze, and disseminate statistics and other data related to education in the United States and in other nations."—Section 406(b) on the General Education Provisions Act, as amended (20 U.S.C. 1221e–1).

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The National Center for Education Statistics (NCES) gathers and publishes information on the status and progress of education in the United States. The federal authorization for these activities (with antecedents to 1867) states that the Center will "collect, collate, and from time to time, report full and complete statistics on the condition of education in the United States." The Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (Public Law 100-297) mandates an annual statistical report on the subject from the Commissioner of Education Statistics. This 1991 edition of the *Condition of Education* responds to the requirements of law.

The condition of education "indicators"—key data that measure the health of education, monitor important developments, and show trends in major aspects of education—are published in separate volumes; one for elementary and secondary education and one for postsecondary education. Both volumes include the text, tables, and charts for each indicator plus the technical supporting data, supplemental information, and data sources.

The indicators presented in these volumes have been developed using data from studies carried out by NCES as well as from surveys conducted elsewhere, both within and outside the federal government. Although indicators may be simple statistics, more often they are analyses—examining relationships; showing changes over time; comparing or contrasting subpopulations, regions, or states; or studying characteristics of students from different backgrounds. Data used for these indicators are the most valid and representative education statistics available in the United States today for the subjects and issues with which they deal.

The indicators portrayed here are selective. No more than 60 indicators are presented in each year's two-volume report. By contrast, the Center's other major annual compendium, *The Digest of Education Statistics*, included more than 380 statistical tables, plus figures and appendices in its 1990 edition. These indicators represent a consensus of professional judgment on the most significant national measures of the condition and progress of education at this time, but tempered, necessarily, by the availability of current and valid information. They reflect a basic core that can be repeated with updated information every year, supplemented by a more limited set of indicators based on infrequent or one-time studies.

This year, for elementary and secondary education, new indicators include:
- High school completion rates at ages 19, 25, and 29;
- Employment rates of recent high school graduates and dropouts;

- Mathematics and science course-taking patterns among high school students;
- Certification and education of full-time public secondary school teachers;
- International comparisons of public expenditures for elementary and secondary education.

For postsecondary education, new indicators include:
- Net cost of college attendance;
- Timing of entry to college;
- Baccalaureate field of study, by sex;
- Starting salaries of college graduates;
- Time allocation and workload of full-time faculty.

The concept of education indicators has gained the attention of the U.S. Congress, national organizations, states, and localities. To assist the Center in conceptualizing and developing a set of education indicators most useful to policymakers and researchers, the Congress mandated that NCES convene a special study panel of experts to "make recommendations concerning the determination of education indicators for study and report" (Public Law 100–297). The report of the panel will be ready for Congress in the summer of 1991. Its recommendations could result in structural or contents changes for the 1992 and subsequent editions of *The Condition*.

In developing indicators, the Center has participated in a widening national discussion about the types of measures that are useful in monitoring the progress of education. The adoption of a set of National Education Goals by the President and the Nation's Governors was accompanied by a commitment for annual reporting on progress toward the goals. The National Education Goals Panel, currently chaired by Governor Roy Romer of Colorado, is charged to make recommendations in September 1991 for appropriate measures, or indicators, by which the Nation can monitor the goals. A number of local education agencies and states, such as California and Connecticut, are monitoring their own reform agendas through education indicators. Also, at the national level, the Council of Chief State School Officers seeks to have consistent reporting by the States on a number of indicators that it has identified.

The utility of *The Condition* should continue to increase as more diverse, high quality data become available, especially as new time series can be constructed. Elementary and secondary education data will be enhanced by revisions in the basic data collected about public schools in the Common Core of Data survey. Two recent data systems begun at the Center are the basis for new indicators in the elementary and secondary volume: the Schools and Staffing Survey (SASS), which covers both public and private schools, and the National Education Longitudinal Study of 1988.

Data collection from more postsecondary institutions than the traditional accredited 2- and 4-year colleges and universities has already begun. This expanded system, called the Integrated Postsecondary Education Data System, also includes information from nonaccredited institutions whether they are public or private, 4-year, 2-year, or less-than-2-year. Information from this broader group of institutions will provide a much clearer picture of what is happening in the full scope of postsecondary education. Two other recent data systems begun at the Center are the basis for new indicators in the postsecondary volume: the National Postsecondary Student Aid Study (NPSAS) and the National Survey of Postsecondary Faculty (NSOPF).

Finally, the format of *The Condition of Education* is designed to present statistical information in an accessible manner for a general audience. The essence of each indicator is on two facing pages. On the first page, the results are highlighted and a table presents the data. On the second page one or more charts give a graphic representation to the major implications of the indicator. An innovation of this edition is the addition of color to the charts. In addition, there is a discussion preceding each group of indicators relating them to one another. As in previous years, additional tables supporting each indicator are placed in an appendix.

I hope you find the material helpful and invite you to send us comments on how to make future editions even more useful.

Emerson J. Elliott
Acting Commissioner of
Education Statistics

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The Condition of Education was prepared in the National Center for Education Statistics (NCES), Office of Educational Research and Improvement (OERI), by the Indicators and Reports Branch of the Data Development Division.

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This volume has been reviewed by many people often within very tight time constraints and at the expense of their many other responsibilities. Their high professional standards, discerning eyes, and commitment to quality are crucial to the usefulness and relevance of the volume. In OERI, John Burkett, Mary Frase, and Jeanne Griffith reviewed the entire manuscript. OERI staff who reviewed portions of the manuscript were: Susan Ahmed, Bob Burton, Michael Cohen, John Gugel, William J. Hussar, Marilyn McMillian, Joanell Porter, Mary Rollefson, and Summer

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NOTE: These acknowledgments recognize only those who helped develop new indicators for this edition and who helped update indicators repeated from earlier editions. Mention is not made of those who contributed to the initial development of continuing indicators and who were identified in earlier editions.

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> "Why do we seek to know the condition of education? In the answer to this question will be found the reasons for the elaborate statistical record which forms a feature of all official school reports. We take an account of education so that we may know whether it is sufficient in amount and good in quality."
>
> Henry Barnard
> First Commissioner of Education

Introduction

During the 1980s, the country became increasingly aware of the range of critical issues facing the schools. These issues were nationwide in scope, and included the changing face of public schools, drug use, violence in schools, low academic performance in math and science, high dropout rates and declining employment prospects for dropouts, and poor conditions in general for minorities. These concerns continue to have serious implications, not only for the schools, but for the future of individual citizens, U.S. economic competitiveness, and ultimately the structure and cohesiveness of American society and culture.

The Nation responded by renewing its commitment to excellence. The thrust of this commitment constituted a major reform movement, involving government at all levels, school officials and teachers, as well as interested parents and citizens. During the 1980s, an attempt to foster these reforms was undertaken.

As the Nation enters the 1990s, the reform movement has gained new momentum. In September 1989, a national education summit was convened in Charlottesville, Virginia. At that meeting, a number of education problem areas were identified, and later a set of six national education goals was put forward by the Governors and the President. The goals are as follows:

By the year 2000:

- All children in America will start school ready to learn;
- We will increase the percentage of students graduating from high school to at least 90 percent;
- American students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy;
- U.S. students will be first in the world in science and mathematics achievement;
- Every adult American will be literate and possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship; and
- Every school in America will be free of drugs and violence and offer a disciplined environment conducive to learning.

These goals have since been elaborated, and in February 1990, the Nation's Governors and the administration adopted the goals and a list of 21 supplementary objectives. By agreement of the Governors and the President, the National Education Goals Panel chaired by Governor Roy Romer of Colorado was appointed to issue a national report card on the goals in September 1991.

One phrase used now to describe the commitment to education is a "national crusade."[1] *The Condition of Education* provides a means to report on progress toward reform and the national goals. By presenting data on a broad spectrum of issues in American education (some beyond the scope of the national goals), this publication can help monitor the state of education as the Nation progresses through a decade of determined focus on schooling.

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[1] "With Goals in Place, Focus Shifts to Setting Strategy," *Education Week*, 9 (24), March 7, 1990, pp. 1, 20.

The Structure of *The Condition of Education*

Volume 1 of the 1991 edition of *The Condition of Education* presents 30 indicators on the state of elementary and secondary education in the United States. The indicators were chosen carefully to shed light on important issues in elementary and secondary education. The indicators touch on many issues related to the national goals. For example, *Indicators 1:1* and *1:16* relate to the first goal, preprimary education, and *Indicators 1:3* and *1:4* present statistics on the second goal, dropouts and completers. Data for the third goal, academic achievement, can be found in *Indicators 1:5* through *1:9*, while *Indicator 1:8* supplies information on the fourth goal, math and science. *Indicators 1:21, 1:22,* and *1:23* relate to the last goal, a crime- and drug-free environment conducive to learning.

The Condition of Education, however, attempts to go beyond monitoring the national goals. A quick tour of the volume may help readers make the best use of it. The 30 indicators are organized into 3 parts, and 9 sections. The three parts are (1) Student Progression and Outcomes, (2) Context, and (3) Resources. Part I presents data on student beginnings, progress, and completions; student performance; economic outcomes of education; and participation in various curricula. Part II outlines the size and growth of the schools; student characteristics; and the school climate. Part III analyzes data on fiscal characteristics of the schools, and selected characteristics of teachers and administrators.

Each indicator contains an introductory text, a few highlighted items, a text table, and charts related to the data. Bullets usually discuss data found in the text table. On occasion, highlighted items present data found only in supplemental tables. In this situation, reference is made to the location of the supplemental table. Related postsecondary data is found in volume 2 of *The Condition of Education.*

The education pipeline. In part I, students are observed as they move into and through the education pipeline. Section A, Student Beginnings, Progress, and Completions, includes measures of enrollment in preprimary education, progression through elementary school, the high school dropout rate, and an analysis of high school completion by young adults. Section B, Student Performance, presents the results of five student assessments. Measures of educational achievement are presented in the areas of reading, writing, U.S. history, and civics. International measures of mathematics and science achievement are also included, as well as results from college admission tests (i.e., SAT and ACT). Section C, Economic Outcomes, consists of measures on the transition from high school to the workplace, the employment of young adults, and their annual earnings. Section D, Student Participation in Various Curricula, contains data on enrollment in federally supported programs, a comparison of mathematics and science course-taking patterns for U.S.

students in 1982 and 1987, and a look at student use of computers. This structure permits the analysis of student pathways through the elementary/secondary pipeline. That is, an analysis of how many students make use of preprimary services, how they progress (or lag behind) in school, the courses they take, how they perform, and whether they drop out or complete high school is presented.

School context. Part II presents data on the context of elementary and secondary education. Section E, Size and Growth of the Schools, includes information on the growth of the preprimary sector of education (both prekindergarten and kindergarten), and data on the different types of preprimary institutions. Also presented in section E are current and projected enrollment figures in elementary and secondary education. Section F, Student Characteristics, reports data on special problems schools are confronting or services they need to provide, the racial distribution of enrollment, the number and percentage of children living in poverty, students who work while in school, and factors that place students at risk of school failure. Section G, School Climate, includes data on eighth grade students' and teachers' opinions of drug and alcohol use, and of other serious problems in their schools. Also described are the public's perceptions of problems in public schools over the past 20 years. Throughout this section, evidence describing how schools have grown, their current composition, and their atmosphere is presented.

Resources. Part III consists of information on resources in education, including human as well as fiscal assets. Section H, Fiscal Characteristics, contains a measure used to describe average amounts spent on each student in relation to the taxpayers' ability to pay. Also included are international comparisons of *public* elementary and secondary education expenditures. Section I, Teachers and Administrators, presents data on human resources: the average salaries of public school teachers, demographic data for teachers and administrators, teacher attrition, and certification of public secondary school teachers.

Reference groups. Some indicators inform about progress of the student or young adult population, whereas others furnish information about the educational system as a whole. Many indicators contain clear population reference groups. These are (1) the general population at various ages (*Indicators 1:1, 1:2, 1:3, 1:4, 1:5, 1:6, 1:7, 1:8, 1:13, 1:15, 1:19* and *1:24*); (2) preprimary, elementary, and secondary students (*Indicators 1:16, 1:17, 1:18, 1:20, 1:21, 1:22,* and *1:23*); (3) high school graduates of particular ages (*Indicators 1:10, 1:11, 1:12,* and *1:14*); (4) college-bound high school seniors (*Indicator 1:9*); and (5) teachers and administrators (*Indicators 1:22, 1:23, 1:27, 1:28, 1:29,* and *1:30*).

In the remainder of the overview, we gather some of the disparate pieces of evidence on selected issues: (1) the changing face of public schools; (2) problems in schools; (3) math and science; (4) dropping out, completing, employment, and earnings; and (5) minorities.

The Changing Face of Public Schools

A number of important issues face public schools. In preprimary education (prekindergarten and kindergarten), questions focus on readiness for elementary education, access, and the length of the school day. At the elementary level, issues center on generally increasing enrollment, and significant increases in the proportion of the minority student population and the new challenges they bring to schools.

Schools are changing at all levels, and in many different ways. Prekindergarten (Pre-K) has grown rapidly. This increase might be a reflection of rising labor force participation by women, an attempt to give children improved preschool experiences (for parents who are financially able), or increased availability of publicly sponsored preschool programs such as Head Start. Kindergarten enrollment patterns suggest significant overall growth over the past 20 years and very substantial increases in the percentage attending full day. At both the pre-K and kindergarten levels, the proportion of minority enrollment has changed little in this period.

During the 1970s, enrollment at the elementary/secondary levels declined. Since 1984, slight increases have occurred at the elementary level, and slight increases are expected throughout the 1990s, with much larger increases expected to occur at the secondary level. Minority enrollment increases in elementary/secondary education have been dramatic. It is expected that similar increases will occur well into the 21st century. But because minority students are more likely to come from poor families, a larger percentage of students could be at risk for school failure, and also could exert new demands upon public schools.

Pre-K. Pre-K education is predominantly a private undertaking, and it has experienced tremendous growth in recent years. In 1969, almost 72 percent of all pre-K students were attending private institutions. Since then, the proportion in private institutions has dropped only slightly. The percent of all pre-K students attending full day was almost 30 percent in 1969, and has changed very little since then. A dramatic change, however, has taken place in overall enrollment. Since 1972, the number of all children 3- to 4-years-old attending pre-K has more than tripled (from about 860,000 to almost 3 million). In fact, pre-K is growing more rapidly than any other level of education. The enrollment of minorities as a percent of all pre-K enrollment has not shown gains as sharp as those of nonminorities. In 1972, 14.5 percent of all children enrolled in pre-K were black, and about 4.8 percent were Hispanic. By 1988, black enrollment as a percent of total enrollment had decreased to about 10.8 percent, while the corresponding Hispanic enrollment figures increased slightly to about 5.7 percent. However, between 1972 and 1988, average black enrollment *rates* (i.e., as a percent of all black 3- to 4-year-olds) in pre-K increased about 10 percentage points (*Indicators 1:16* and *1:1*).

Kindergarten. Kindergarten has become an integral part of American education. Between 1969 and 1989, enrollment in public kindergarten increased by 17.2 percent, from almost 3.3 million to about 3.8 million. Minority participation in kindergarten has increased, but between 1969 and 1988, black enrollment, as a percent of all kindergartners, increased by only about 2 percentage points.

The percentage of those attending kindergarten full day has increased dramatically. In 1969, only about 11 percent of all kindergartners attended full day. By 1989, that figure had almost quadrupled to about 40 percent. This growth could reflect the type of kindergarten more school districts are now providing (i.e., there could be greater stress on academic preparation for elementary school, and consequently more full-day schedules), or possibly the increasing labor force participation of women (*Indicator 1:16*).

Elementary and secondary. One of the major findings in elementary and secondary education is the rapid increase in the fraction of minority students. In 1976, minorities were 24 percent of elementary/secondary enrollment. By 1986, minority enrollment was almost 30 percent. Recent projections suggest that by the year 2020, minority children will compose about 46 percent of all children in public elementary and secondary education.[2]

Minority families generally have higher poverty rates than white families. For example, in 1988, black children were more than three times as likely as whites to be living in poverty, and Hispanic children were about 2.6 times as likely. Since minority status and poverty are positively correlated (and poverty can contribute to students being at risk of school failure), this increase could portend an increasing demand on schools for a number of educational and social services which traditionally either have not been provided, or provided on only a limited basis (*Indicator 1:19*).

Minorities are at risk for other reasons, as well. Almost half of all black eighth graders in 1988 came from a single parent family. Almost 38 percent of the parents of Hispanic eighth graders had no high school diploma, and 16 percent of Hispanic eighth graders had a sibling who had dropped out of school. In addition, minorities were 2.5 to three times more likely than whites to have had two or more of these "risk factors" (*Indicator 1:21*).[3]

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[2] Pallas, A.M., G. Natriello, E.L. McDill, "The Changing Nature of the Disadvantaged Population: Current Dimensions and Future Trends," *Educational Researcher*, 18 (5), 1989.

In addition to the sharp increase in minority enrollment, other enrollment changes have occurred at the elementary and secondary levels. In the early 1970s, as the last birth cohorts of the "baby boomers" moved out of elementary schools, public elementary enrollment fell. This pattern continued until 1984, during which time public elementary enrollment decreased by about 17 percent. However, beginning in 1984, schools experienced the beginning of a "baby boomlet" as the children of the baby boomers began to enter school. Between 1984 and 1989, enrollment in public elementary schools increased by almost 3 percent. From 1990 to 2001, elementary enrollment is projected to rise about another 3 percent. Growth patterns in secondary education, however, are somewhat different. During the 1970s and 1980s, public secondary school enrollment decreased by 14 percent. During the 1990s, however, enrollment at the public secondary level is expected to increase by about 20 percent (*Indicator 1:17*).

Problems Confronting Schools

The sixth national education goal states that schools in America will be drug- and violence-free with an orderly environment conducive to learning. Disciplined school environments have been a concern of the American public for at least the last 20 years, and concern for order in schooling predates the modern era.[4]

Responses from students, teachers, and the general public demonstrate that different groups perceive school problems differently. Consequently, the nature and extent of these problems is not clear. The available evidence suggests that poorer schools have more serious problems than schools with a low rate of poverty, and that Catholic and other private schools have fewer problems than public schools. Nevertheless, in the public schools, the vast majority of eighth grade students and teachers see few "serious" problems. Students cite conflicts among themselves, alcohol use, and school vandalism as their most pressing concerns. While vandalism can cost millions nationally,[5] a recent report on school crime and safety suggests that violent conflicts are limited to a very small proportion of the population.[6] Although a large percentage of the public is concerned about drug use in the schools, from the perspective of students and teachers, drug use in the 8th and 12th grades is not felt to be the most serious problem facing schools.

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[3] U.S. Department of Education, National Center for Education Statistics, National Educational Longitudinal Study of 1988, *A Profile of the American Eighth Grader*, 1990.

[4] Boyd, W., and King, E.J., *The History of Western Education*, (11th edition), Bid and Noble Books, Totowa, New Jersey, 1977.

Drug usage in schools. In a Gallup poll, the public has shown a dramatic increase of concern about drugs in school since 1986. By 1990, 38 percent of the public indicated that drug usage was a major problem facing public schools, the largest percent to voice concern about any problem since the inception of the poll. However, drug usage appears to be down, especially for high school seniors.[7] Also, in 1988, only about 14 percent of all eighth grade students and 6 percent of eighth grade teachers indicated that drugs were a serious problem in their schools. About 90 percent of these eighth graders in 1988 said that they had never been offered drugs. Hispanics and American Indians, however, were more likely to have been offered drugs than whites, blacks, or Asians (*Indicator 1:22*).

Student and teacher perceptions of problems. In 1988, eighth grade students indicated that the most serious problems at their schools were[8] physical conflicts among themselves (16.6 percent), alcohol (14.5 percent), vandalism of school property (14.5 percent), drugs (14.2 percent), robbery or theft (13.5 percent), and verbal abuse of teachers (11.5 percent). Teachers indicated that the most serious problems in their school were verbal abuse of teachers (10.1 percent), alcohol (7.5), physical conflicts among students (7 percent), drugs (6.2 percent), vandalism of school property (4.9 percent), and robbery or theft (2 percent). The evidence also indicates that a greater percentage of students and teachers in poorer schools were inclined to cite problems as serious than those in less impoverished schools. For example, about 23 percent of all students in schools with a high level of poverty cited physical conflicts among themselves as a serious problem, but only about 16 percent of students in schools with low levels cited these conflicts as serious problems. Also, on average, students in public schools tended to cite more serious problems than those in Catholic or other private schools. For instance, students in Catholic and other private schools were about half as likely as public school students to indicate that alcohol and drugs were serious problems in their schools (*Indicators 1:23* and *1:22*).

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[5] Zwier, G., and Vaughn G.M., "The Ideological Orientations in School Vandalism Research," *Review of Educational Research*, 54, pp.263-292, 1984.

[6] U.S. Department of Justice, Bureau of Justice Statistics, *National Crime Survey, School Crime Supplement*, 1991.

[7] See *The Condition of Education, Volume 1*, indicator 1:21, 1990; University of Michigan, News and Information Services, "Use of Crack...", January 24, 1991, and "Survey Says Drug Use Continues to Decline." *The Washington Post*, January 25, 1991.

[8] This list does not include student tardiness, student absenteeism, or cutting class. The percentage of students and teachers who consider these to be serious problems are as follows: student tardiness (11.9 students, 9 percent teachers); student absenteeism (11.8 students, 12.3 percent teachers); cutting class (15 percent students, 3.8 percent teachers).

Public perceptions of problems. The public perception of problems in the public schools differs from that of students and teachers. As noted above, since 1986, the largest percentage of the public has cited drugs as a serious problem for schools. "Lack of discipline" has been *consistently* perceived as another major problem facing the public schools, as has lack of proper financial support for schools. However, the perception of other problems cited by the public has changed over time. For example, in 1972, 21 percent of the U.S. public indicated that integration/busing was a major problem; by 1990, only 5 percent considered it to be so. Conversely, the drug problem has only recently moved to the forefront. As recently as 1977, only 7 percent of the public indicated that drugs were a major problem (*Indicator 1:22*).

Math and Science

The fourth national education goal states that U.S. students will be first in the world in science and mathematics proficiency. In an increasingly technological world, many individuals skilled in mathematics and science will be needed if this country is to remain competitive in international markets. Evidence presented below indicates that currently the U.S. is far from that goal, and suggests that attaining it will be quite difficult for a number of important reasons.

On a positive note, most students seem to be convinced of the importance of math and science, at least on a practical level. However, current achievement in math and science is very low (especially when compared to students in other countries), and this seems to be a consistent pattern across almost all areas of math and science. Even *advanced* math and science U.S. students compare poorly with students in other countries. In general, the preparation and qualifications of math and science instructors appear to be weak. However, in 1987, a significantly higher percentage of individuals (across all race and ethnic groups) was taking more advanced math and science courses than individuals in 1982.

Current proficiency in mathematics. In an international assessment of math and science in 1988, American students ranked last in mathematics among six developed countries.[9] On average, American 13-year-olds placed in the basic proficiency range, indicating an ability to understand basic mathematics operations and beginning problem solving. By contrast, Korean 13-year-olds, on average, operated in the intermediate range and could solve two-step problems (*Indicator 1:8*).

During the 1981–82 school year, approximately 13 percent of college-preparatory 12th grade mathematics students were assessed in mathematics achievement. Students who were tested were required to have taken at least 2 years of algebra and 1 year of geometry and to be seriously studying mathematics in their senior year. Similar samples were drawn from 12 countries. Six topics were tested: number systems, sets and relations, algebra, geometry, elementary function and calculus, and probability and statistics. Across all areas of mathematics, this select group of U.S. students never achieved as well as the international mean. Generally, U.S. scores were in the bottom one-fourth of countries.[10]

Current proficiency in science. Results from science assessments are similar. In an international assessment in 1988, U.S. students placed in the lowest group of nations. Their scores suggest that the average American 13-year-old could understand and apply only simple scientific principals. By contrast, Korean 13-year-olds were able to use scientific procedures and analyze scientific data (*Indicator 1:8*).

Between 1983 and 1986, the International Association for the Evaluation of Educational Achievement (IEA) assessed science achievement for students in the final year of secondary schools. Students in this assessment were a very select group. U.S. samples were drawn from only the *6 percent* of U.S. students taking a second year of biology, and from only the *1 percent* taking a second year of either physics or chemistry (usually "advanced placement" courses). Generally, compared to advanced students in other countries, these *advanced* U.S. students scored lower in chemistry and physics, and much lower in biology. Also, in other countries a much higher percentage of students were taking these advanced courses (e.g.,

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[9] One Canadian province (French-speaking Ontario) ranked as low as the United States, but six other groups ranked higher.

[10] McKnight, C.C., F.J. Crosswhite, J.A. Dossey, E. Kifer, J.O. Swafford, K.J.Travers, and T.J. Cooney, *The Underachieving Curriculum: Assessing US School Mathematics from an International Perspective* (Champaign, Il.: Stipes Publishing Co.), 1987.

Hong Kong, 13 percent in biology; Sweden, 15 percent in chemistry; and Norway, 15 percent in chemistry).[11]

Attitudes about mathematics and science. A vast majority of students in all countries agreed that mathematics is useful in solving everyday problems.[12] About two-thirds of U.S. 13-year-olds felt they were "good at mathematics," despite their overall poor performance. By contrast, less than one-quarter of Korean students (the group which scored the highest) had the same attitude. An inverse relationship exists between response to this question and overall performance. That is, the U.S. students ranked last in proficiency, but ranked their skill highest. Clearly, the self-appraisals of U.S. students did not match their proficiency.[13]

Teachers of science. On average, in 1988, high school science teachers were less likely to have concentrated in their primary teaching field as an undergraduate than were other teachers. Additionally, science teachers were less likely to be certified in their primary field assignment than were teachers in other disciplines (*Indicator 1:30*).

Mathematics and science coursetaking. In 1987, significantly more high school graduates had taken an array of advanced math courses: algebra II, geometry, trigonometry, calculus, and combinations of these than had done so in 1982. Over the same time period, fewer students were taking remedial or below-grade math courses. Results for science were similar. Significantly more high school graduates in 1987 had taken biology, chemistry, and physics than had high school graduates in 1982. It should be noted that the percentage of black and Hispanic, as well as white, high school graduates taking math and science courses also significantly increased in most subject areas during the same period (*Indicator 1:14*).

Dropping Out, Completing, and the World of Work

The dropout problem is one which has taxed the energy and imagination of both educators and policymakers. The national goals call for a 90 percent high school graduation rate by the year 2000. In proposing this goal, policymakers underscored the advantages of a high school diploma.

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[11] International Association for the Evaluation of Educational Achievement, *Science Achievement in Seventeen Countries: A Preliminary Report*, Pergamon Press, 1988.

[12] *Ibid.*

[13] *Ibid.*

During the 1980s, large numbers of students (especially black males) were falling below modal grade. While previous research has found that having failed 1 or more grades or being above modal age for grade has been associated with greater likelihood of dropping out of school,[14] it remains to be seen if this will later be associated with higher dropout and lower completion rates for these cohorts. Dropout rates declined in the last decade. In addition, many students—as many as half—who drop out of high school later return to complete their studies or earn an equivalency diploma.[15] There is consistent evidence which indicates that possession of a high school diploma makes a significant difference in terms of employment and earnings.

Students falling behind. In 1988, a large percentage of students were below modal grade. Modal grade is defined as the grade in which most children of a certain age are enrolled. For example, since most 8-year-olds are in the third grade, and most 13-year-olds are in the eighth grade, the third and eighth grades are the modal grades for 8- and 13-year-olds, respectively. During the 1980s, all racial/ethnic groups, and both sexes experienced a substantial increase in the percentage of individuals below modal grade.[16]

Across racial/ethnic groups, on average, black males were most likely to be below modal grade: almost 46 percent for 13-year-olds in 1988. About 36 percent of 13-year-old black females were also below modal grade. White 13-year-old males and females were less likely than black 13-year-old males and females to be below modal grade. Nevertheless, a substantial increase of *white* 13-year-olds below modal grade occurred during the 1980s (*Indicator 1:2*).

From 1970 to 1988 the total proportion of students who dropped out in a single year without having completed high school fell from 5.5 percent to 4.5 percent. Of all racial/ethnic groups, the dropout rate of blacks fell most dramatically. In 1970, the average black dropout rate was 10.8; by 1988, it had dropped to 6.6 percent. The rate for Hispanics, however, remained higher than most other racial/ethnic groups—7.9 percent in 1988 (*indicator 1:3*).

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[14] *Turning Points: Preparing American Youth for the 21st Century*, Carnegie Council on Adolescent Development, Carnegie Corporation of New York, 1989.

[15] U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1988*, 1988.

[16] Two explanations have been offered for this phenomenon. First, in the wake of *A Nation at Risk*, with its call for "tougher standards", it is possible there was a decline in the use of "social promotion". Consequently, more students were retained. Second, it is possible that during the 1980s, children were starting school at a later age. For example, in 1978, 14.5 percent of all first graders were 7 or older, but in 1985, almost 19 percent of all first graders were 7 or older.

Completions and age. Although individuals continue to drop out of school, many return to earn a high school diploma or an equivalency certificate. The overall high school completion rate for 19-year-olds in 1974 was 79 percent, but the same birth cohort had almost an 87 percent completion rate by 1984 when the cohort was 29 years of age.[17] This finding is consistent for blacks, as well. Only about 69 percent of black 19- to 20-year-olds had completed high school in 1979; by 1989, when 29 to 30 years of age, 81 percent of the cohort had completed high school, an increase of 12 percentage points. Less encouraging are the completion rates for Hispanics. While some increases have occurred since 1974, Hispanic completion rates are still well below those of both whites and blacks(*Indicator 1:4*).

Dropouts and late completers. Of the sophomore class of 1980, only about 17 percent did not complete high school on time (1982). By 1984, about 5 percent of that group had either earned a high school diploma, or completed an equivalency certificate. By 1986, another 2.8 percent had completed high school or completed an equivalency certificate.[18] Thus, by 1986, of the 17 percent who had failed to complete high school on time, an additional 8 percent (or almost half) had completed high school. This indicates that almost 91 percent of the sophomore class of 1980 had completed high school by 1986 (*Indicator 1:3*).

Completions and economic outcomes. The difference between the employment rate of recent high school completers and those who dropped out is dramatic. In 1989, almost 72 percent of all recent completers were employed, but the employment rate for those who dropped out was less than 50 percent. The employment rate of blacks who dropped out was lower than for whites. Only about 55 percent of all black high school completers were employed in 1989, compared with about 75 percent of whites. In fact, white *dropouts* were almost as likely as black *completers* to be employed (*Indicator 1:10*).

Earnings data show a similar picture. In 1989, white males with 9 to 11 years of schooling earned about one-quarter less than white male completers, and black males with 9 to 11 years of schooling earned about one-third less than black male completers. College completers, however, among all races and both sexes, had higher median annual salaries than high school completers or dropouts. On average, as individuals move up the educational ladder, salaries tend to rise.

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[17] Based on a comparison of the high school completion rate of 19-year-olds in the 1974 October Current Population Survey (CPS), and 29-year-olds in the 1984 October CPS. Both surveys are cross-sectional random samples of the population in their respective years.

[18] This does not include those dropping out before the spring of sophomore year.

Minorities

A summary of minority status in education suggests the complexity of the problems facing the Nation as minority enrollment increases. While much of this material has been presented previously in this overview, it is summarized here to indicate the current standing of minorities in American elementary/secondary education.

- A high percentage of minority eighth graders have 2 or more factors which might place them at risk of school failure (*Indicator 1:21*).
- The number of blacks (especially males) falling below modal grade rose sharply during the 1980s (*Indicator 1:2*).
- The percentage of dropouts remains much higher for Hispanics than for either blacks or whites (*Indicator 1:3*).
- The percentage of children living in poverty is two to three times greater for minorities than whites (*Indicator 1:19*).
- Minority students are over represented in special education classes (*Indicator 1:13*).
- Minorities are under represented in teaching and administrative positions (*Indicator 1:28*).

However,

- Enrollment rates in kindergarten have accelerated for minorities (*Indicator 1:1*).
- The dropout rate for blacks is declining, and high school completions are increasing (*Indicator 1:3*, and *1:4*).
- Generally, black and Hispanic scores on national achievement tests have remained well below those of whites, but across four mathematics assessments since 1973, the average performance differences between whites and blacks have steadily narrowed. Similar trends have occurred in science and reading (*Indicator 1:5*).[19]

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[19] U.S. Department of Education, National Center for Education Statistics, *Accelerating Academic Achievement: A Summary of Findings From 20 Years of NAEP*, 1990.

- Minority student performance on the Scholastic Aptitude Test (SAT) has increased significantly in recent years (*Indicator 1:9*).
- A significantly higher percentage of black high school graduates had taken more math and science courses in 1987 than in 1982 (*Indicator 1:14*).

Conclusion

The preceding discussion has highlighted only a few of the issues treated by the 30 indicators in this volume. *The Condition of Education* presents data and analyses on a wide variety of issues in elementary and secondary education. The overview has described the structure of this publication and discussed five issues of concern to educators and policymakers. The reader is encouraged to read the overviews to each subsection for discussion of other issues, to peruse the indicators of interest, and to use the supplementary tables for additional details.

Indicators of Elementary and Secondary Education

I. Student Progression and Outcomes

Although overall enrollment in preprimary education has grown rapidly in recent years, there are important differences in trends among different racial and ethnic groups. From 1972 to 1988, enrollment in prekindergarten (pre-K) doubled for white children. Pre-K enrollment rates rose rapidly for black children until 1979. As white pre-K rates continued to increase during the 1980s, black pre-K rates declined somewhat. However, on average, a higher proportion of black 3- to 4-year-olds attend kindergarten than whites. Overall, kindergarten enrollment rates have risen. This is especially the case for black 5-year-olds, who now are as likely as whites to be enrolled in kindergarten. Hispanic enrollment rates in kindergarten are similar to those of blacks and whites (*Indicator 1:1*).

Consistent progress through the elementary and secondary grades is important for academic success. In this section, academic progress is measured by enrollment in modal grade for age. Modal grade is the grade in which the largest number of children of a certain age are enrolled. For example, the modal grade for 8-year-olds is the third grade, and the modal grade for 13-year-olds is the eighth grade. Research has suggested that those students who are below their modal grade are at greater risk of dropping out of school.[*] The data indicate that males, blacks, Hispanics, and older children are more likely to be below modal grade than females, whites, and young children. Almost half of black and Hispanic male 13-year-olds were below modal grade in 1988 (*Indicator 1:2*).

On a more positive note, data indicate that the overall dropout rate declined during the 1980s, after rising during the 1970s. As used here, the dropout rate is a measure of "event dropouts." This quantity refers to the proportion of students who drop out without completing high school in a single year. For black males, the rate generally declined through most of the two decades and fell about 4 percentage points from 1970 to 1988. Hispanic rates are much higher than the overall dropout rate (*Indicator 1:3*).

High school completion rates for individuals between the ages of 19 and 29 indicate that an increased percentage are completing their high school education. (This age group was chosen to take into account late completers—both nondropouts taking longer than average to complete, and dropouts who return to obtain a high school diploma or equivalency credential.) On average, for a given age cohort (e.g., age 19 in 1979, age 24 in 1984, and age 29 in 1989), the high school completion rate rises about 5 percent between the ages of 19 and 24, and another 2 percent between 24 and 29. Across age groups, completion rates have increased slightly for whites and considerably for blacks since 1974. The wide gap between blacks and whites has narrowed considerably (e.g., from 14 to 5 percent for 24- to 25-year-olds since 1974). Hispanic completion rates fall well below those of both whites and blacks, and there has been no significant improvement in the Hispanic completion rates at any age. In 1989, the completion rate for 19- to 20-year-old Hispanics was 27 percentage points below whites and about 15 percentage points below blacks. For Hispanic 24- to 25-year-olds, the completion rate was about 32 percentage points below whites, and almost 27 points below blacks (*Indicator 1:4*).

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[*] See *Turning Points: Preparing American Youth for the 21st Century*, Carnegie Council on Adolescent Development, Carnegie Corporation of New York, 1989.

In summary, the data suggest that most students do progress through school on schedule. However, a consistently high number of black and Hispanic males fall below modal grade, which may put them at risk of dropping out. Dropout rates for most groups, however, are declining. In addition, the high school completion rate of whites and blacks (but not Hispanics) is increasing. Thus, the data suggest some positive trends for most youth with respect to progress through schooling. Hispanics, however, are the exception. Fewer Hispanics are enrolling in pre-K, almost half of 13-year-old male Hispanics have fallen below modal grade, and fewer than 60 percent of the 28- to 29-year-olds complete high school.

A. Student Beginnings, Progress, and Completions

Indicator 1:1 Enrollment rates in preprimary education

Within most groups in the population, an increasing percentage of children is receiving preprimary instruction. As the demand for prekindergarten (pre-K) and kindergarten services increases, educators and policymakers must have reliable enrollment data to analyze trends and anticipate needs.

- **In the 1970s, there was little difference between pre-K enrollment rates of blacks and whites. In the 1980s, white rates continued to increase and were higher than those of either blacks or Hispanics, but, on average, a higher proportion of black 3- to 4-year-olds attended kindergarten than whites (supplemental tables 1:1-2 and 1:1-3).**
- **In the late 1980s, no significant difference in kindergarten enrollment rates between blacks, whites, or Hispanics was evident; the gap between whites and blacks of the early 1970s had disappeared.**

Enrollment rate (percent enrolled) in preprimary education, by age, level, and race/ethnicity: 1972–1988 (3-year average)

	3- to 4-year-olds in pre-kindergarten				5-year-olds in kindergarten			
Year[1]	Total	White	Black	Hispanic[2]	Total	White	Black	Hispanic[2]
1972	16.6	16.5	16.2	—	73.2	74.1	67.1	—
1973	19.1	19.0	19.1	—	74.7	75.5	69.1	—
1974	21.3	21.2	21.2	—	75.9	77.1	69.1	—
1975	23.0	23.0	22.3	—	77.7	78.9	71.4	—
1976	24.1	24.0	23.9	—	78.7	79.9	74.0	—
1977	25.4	25.1	26.0	—	78.9	80.0	74.6	—
1978	27.3	27.1	27.8	—	77.5	80.4	74.6	—
1979	29.2	29.1	29.1	—	78.3	81.3	74.6	—
1980	29.7	29.9	28.0	—	78.4	81.2	75.5	—
1981	30.6	30.7	28.4	—	80.2	81.1	76.2	—
1982	30.7	30.8	28.6	—	78.1	80.1	75.3	—
1983	30.8	31.0	28.8	—	78.4	80.3	76.1	—
1984	31.1	31.7	28.4	—	78.9	80.3	76.3	—
1985	31.9	32.7	28.3	19.0	81.3	81.4	79.1	78.0
1986	32.3	33.4	27.2	20.2	81.2	80.6	81.5	77.5
1987	32.5	33.7	25.6	18.6	80.5	80.9	79.9	78.3
1988	33.7	34.2	26.4	18.0	79.4	79.8	78.5	76.9

— Not available.

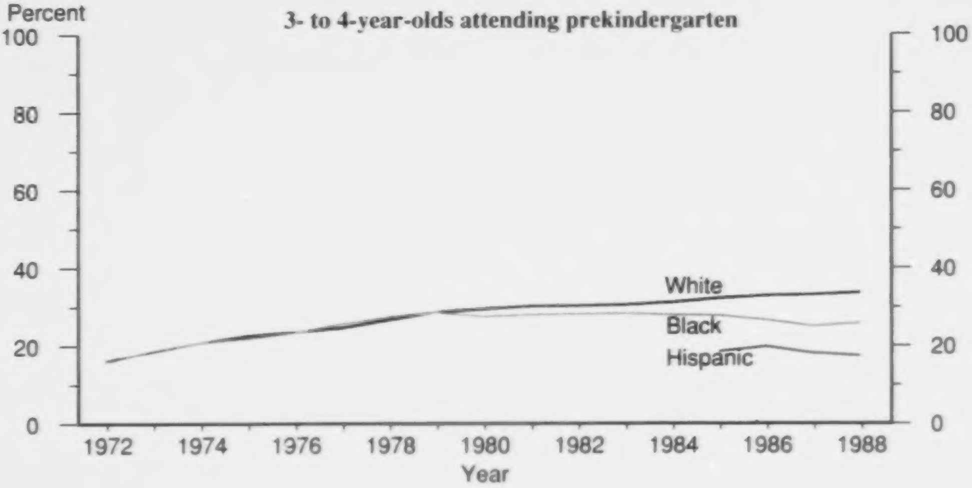
[1] Three-year average. For example, the 3-year average percentage for 1986 is the average of the percentages for 1985, 1986, and 1987. See supplementary tables 1:1-1 through 1:1-8 for single-year percentages. (Three-year averages are used to remove wide yearly fluctuations in race-specific data based on small samples.)

[2] Hispanics may be of any race.

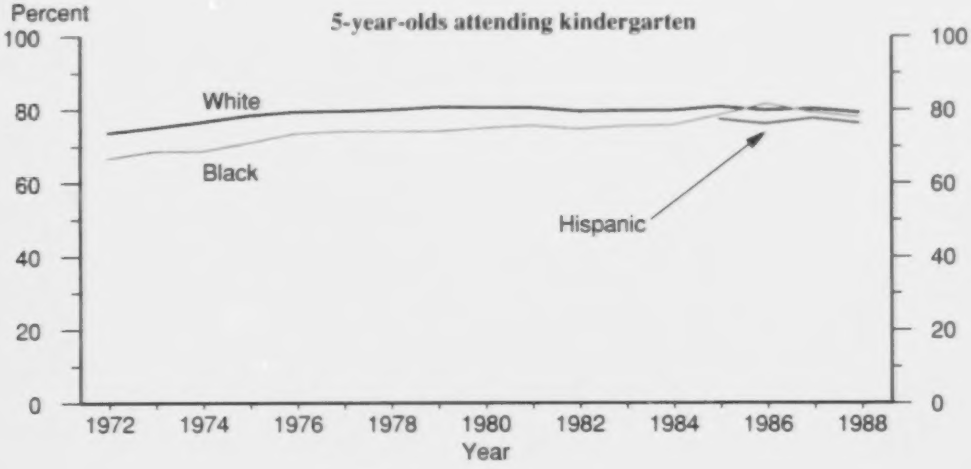
NOTE: Total enrollment rates for these age groups are higher than those presented here. Three- and 4-year-olds, for example, are sometimes enrolled in kindergarten, while 5-year-olds are also enrolled in pre-K and the first or second grades. For enrollment rates in other levels, see supplemental tables 1:1-1 through 1:1-8.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Chart 1:1 **Enrollment rates in preprimary education, by age, and by race/ethnicity: 1972–1988 (3-year average)**



3- to 4-year-olds attending prekindergarten



5-year-olds attending kindergarten

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

A. Student Beginnings, Progress, and Completions

Indicator 1:2 Enrollment below modal grade for 8- and 13-year-olds

This indicator portrays how different groups progress through school by analyzing the percentage of children below the grade in which most children their age are enrolled (i.e., their modal grade). The Carnegie Council on Adolescent Development and others have stated that students lagging behind in grade are more susceptible to dropping out of school than those in modal grade.

- **Since 1970, black 13-year-old males have been most likely to be below modal grade (45.5 percent in 1988).**
- **During the 1980s, white males and females and black females at both age levels experienced substantial increases in the percentage of individuals below modal grade.**
- **Overall, a greater percentage of male students were below modal grade than females.**

Percent of individuals 1 or more years below modal grade, by age, race, and sex: 1970–1988 (3-year average)

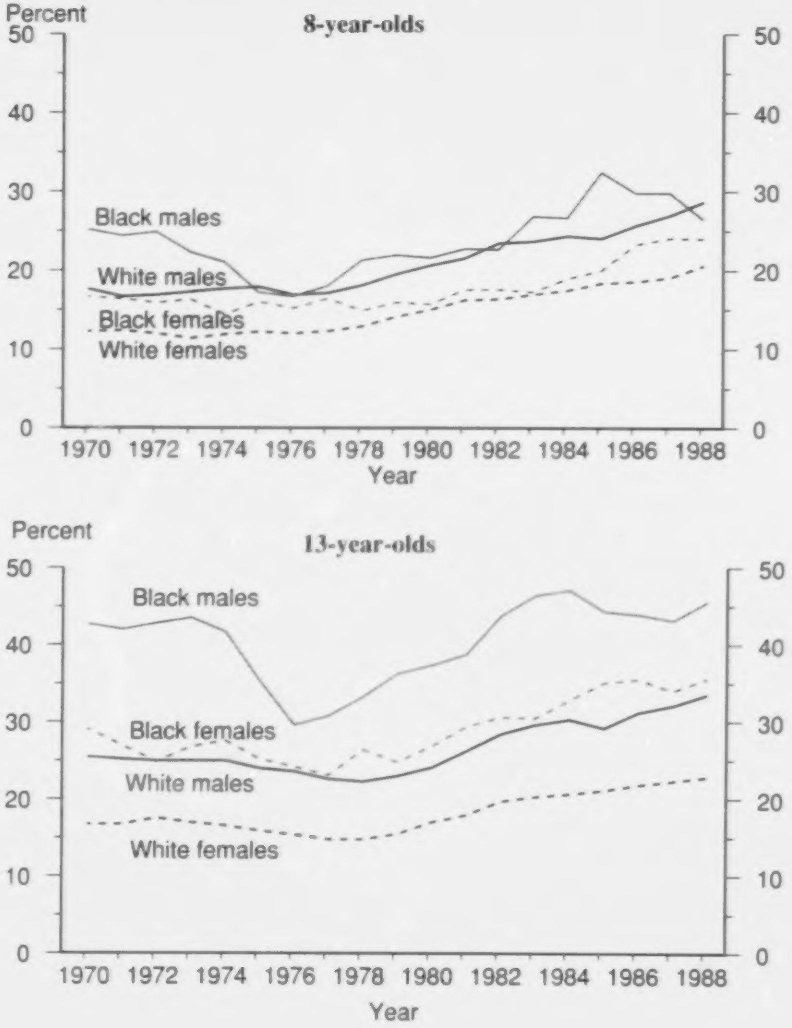
	8-year-olds						13-year-olds					
	All races		White		Black		All races		White		Black	
Year*	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1970	18.7	13.1	17.7	12.3	25.2	16.7	27.7	18.3	25.4	16.7	42.7	29.1
1971	17.7	13.1	16.7	12.4	24.4	16.4	27.3	18.0	25.1	16.7	42.0	26.9
1972	18.0	12.7	16.9	12.0	24.9	15.9	27.3	18.3	24.9	17.5	42.8	24.8
1973	17.9	12.1	17.3	11.4	22.3	16.3	27.4	18.3	24.9	16.9	43.5	26.7
1974	18.0	12.3	17.7	11.9	21.0	14.4	27.1	18.1	24.9	16.5	41.6	27.4
1975	17.6	12.7	17.9	12.2	17.2	16.0	25.2	17.3	23.9	15.8	35.3	25.0
1976	16.7	12.6	16.9	12.0	16.7	15.2	24.1	16.8	23.5	15.3	29.5	24.0
1977	17.2	12.9	17.1	12.3	18.0	15.7	23.5	16.2	22.5	14.7	30.7	23.0
1978	18.7	13.2	18.1	12.9	21.3	14.2	23.8	16.8	22.2	14.7	33.2	26.3
1979	19.9	14.4	19.5	14.1	21.9	15.3	24.9	17.1	22.9	15.4	36.2	24.7
1980	20.8	15.2	20.6	15.0	21.6	15.7	26.0	18.6	24.0	16.9	37.3	26.8
1981	21.7	16.5	21.5	16.2	22.7	17.5	28.0	19.8	26.1	17.8	38.7	29.3
1982	23.2	16.7	23.4	16.3	22.6	17.5	30.5	21.2	28.3	19.6	43.7	30.5
1983	23.9	17.0	23.6	16.9	26.8	17.2	32.0	21.9	29.5	20.2	46.3	30.4
1984	24.4	17.7	24.3	17.4	26.6	18.9	32.6	22.6	30.2	20.5	47.0	32.7
1985	24.9	18.4	24.0	18.3	32.4	19.9	31.5	23.5	29.1	21.0	44.2	35.0
1986	25.7	19.4	25.6	18.5	29.7	23.2	33.0	24.3	31.1	21.7	43.8	35.4
1987	26.9	19.8	26.9	19.0	29.7	24.0	33.7	24.2	32.0	22.2	43.0	33.9
1988	28.1	21.0	28.6	20.5	26.3	23.9	35.3	24.8	33.4	22.7	45.5	35.5

* Three-year average. For example, the 3-year average percentage for 1985 is the average of the percentages for 1984, 1985, and 1986. (Three-year averages are used to remove wide yearly fluctuations in race-specific data based on few samples.)

NOTE: Modal grade for 8-year-olds is third grade; for 13-year-olds, it is eighth grade.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Chart 1:2 **Enrollment below modal grade for 8- and 13-year-olds, by race and sex: 1970–1988 (3-year average)**



SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . . ," various years; October Current Population Survey.

Indicator 1:3 Dropout rates and late completions

The consequences of dropping out can be severe for both the dropout and society. Concern about dropouts has increased considerably at all levels of government and among the public. This indicator analyzes the dropout phenomenon from two perspectives. First, average "event dropout" rates are presented. An "event dropout" rate measures the proportion of students who drop out during a 12-month period. A second table and chart show the proportion of dropouts who later return to complete school.

- **On average, 4.5 percent of all 15- to 24-year-olds in grades 10 to 12 dropped out of school each year between 1986 and 1988. Dropout rates for blacks and Hispanics are higher than those for whites.**
- **The total event dropout rate declined between 1980 and 1988, from 6.2 to 4.5 percent.**
- **Black male dropout rates fell from 10.8 percent in 1970 to 6.6 percent in 1988.**
- **While 17 percent of the sophomore class of 1980 had not completed school on time (in June 1982), almost half of these noncompleters returned to receive either a high school diploma or an equivalency certificate by 1986.**

Event dropout rates, by race/ethnicity and sex: Selected years 1970–1988 (3-year average)

		White		Black		Hispanic[2]
Year[1]	Total	Male	Female	Male	Female	Both sexes[3]
				Percent		
1970	5.5	4.9	5.1	10.8	8.2	—
1975	6.1	6.1	5.3	9.2	9.2	9.2
1980	6.2	6.2	5.3	8.3	10.0	11.1
1985	5.0	5.0	4.6	6.5	6.0	10.9
1988[4]	4.5	4.4	3.9	6.6	7.0	7.9

Sophomore class of 1980 completion record

Time period	Percent completed	Percent not completed
June 1982	82.7	17.3
June 1984	87.9	12.1
Spring 1986	90.7	9.3

— Not available.

[1] Three-year average. For example, the 3-year average percentage for 1988 is the average of the percentages for 1987, 1988, and 1989.

[2] Hispanics may be of any race. Hispanic data start in 1973.

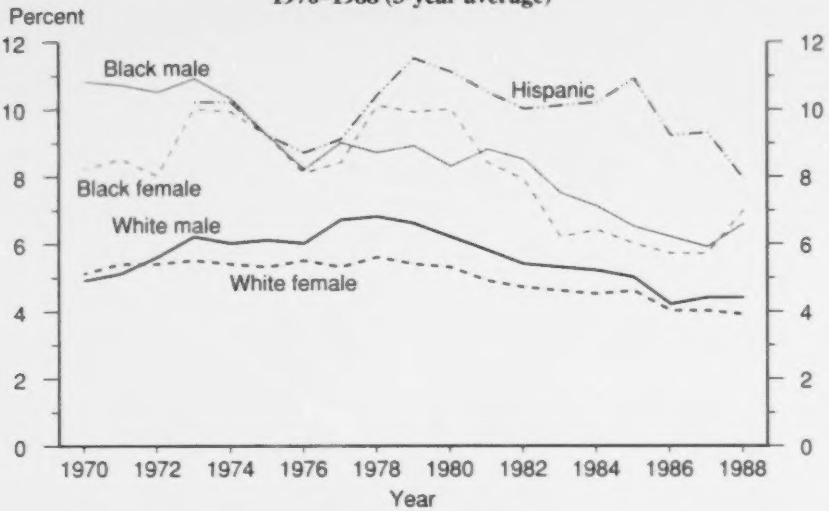
[3] Sample size is too small to calculate reliable estimates by sex.

[4] The 3-year average for 1988 is based on data for 15- to 24-year-olds only. Other years are based on data for 14- to 24-year-olds.

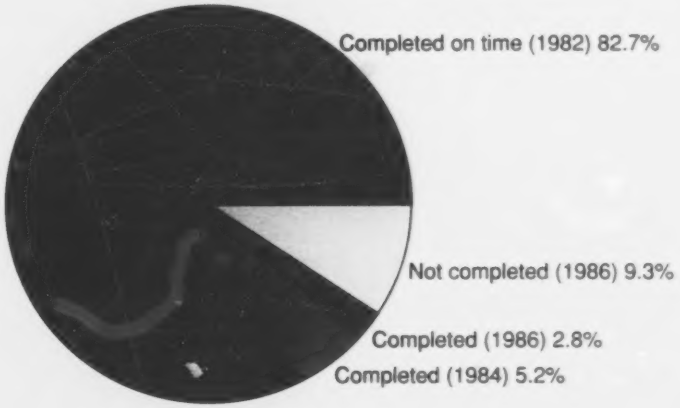
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1989*; High School and Beyond survey, sophomore cohort.

Chart 1:3 Dropout rates and late completions

Event dropout rates from grades 10–12, by race/ethnicity and sex: 1970–1988 (3-year average)



Completers, dropouts, and late completers: Sophomore class of 1980



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States*; High School and Beyond survey.

A. Student Beginnings, Progress, and Completions

Indicator 1:4 High school completion

One important measure of this Nation's success in educating its youth is the proportion completing high school. Possession of a high school diploma, or its equivalent, signifies that an individual should have sufficient knowledge and skills to function productively in society. Monitoring high school completion rates for various age groups between 19 and 29 takes into account those who have taken longer to complete their high school education.

- **In 1989, the high school completion rate was 81.1 percent for 19-year-olds, 86.5 percent for 24-year-olds, and 86.9 percent for 29-year-olds.**
- **Among racial/ethnic groups, whites have the highest rates of completion, and Hispanics the lowest. Completion rates for blacks have been rising.**
- **Between 1974 and 1989, the difference between black and white completion rates for 24- to 25-year-olds had been narrowed from about 14 to approximately 5 percent.**

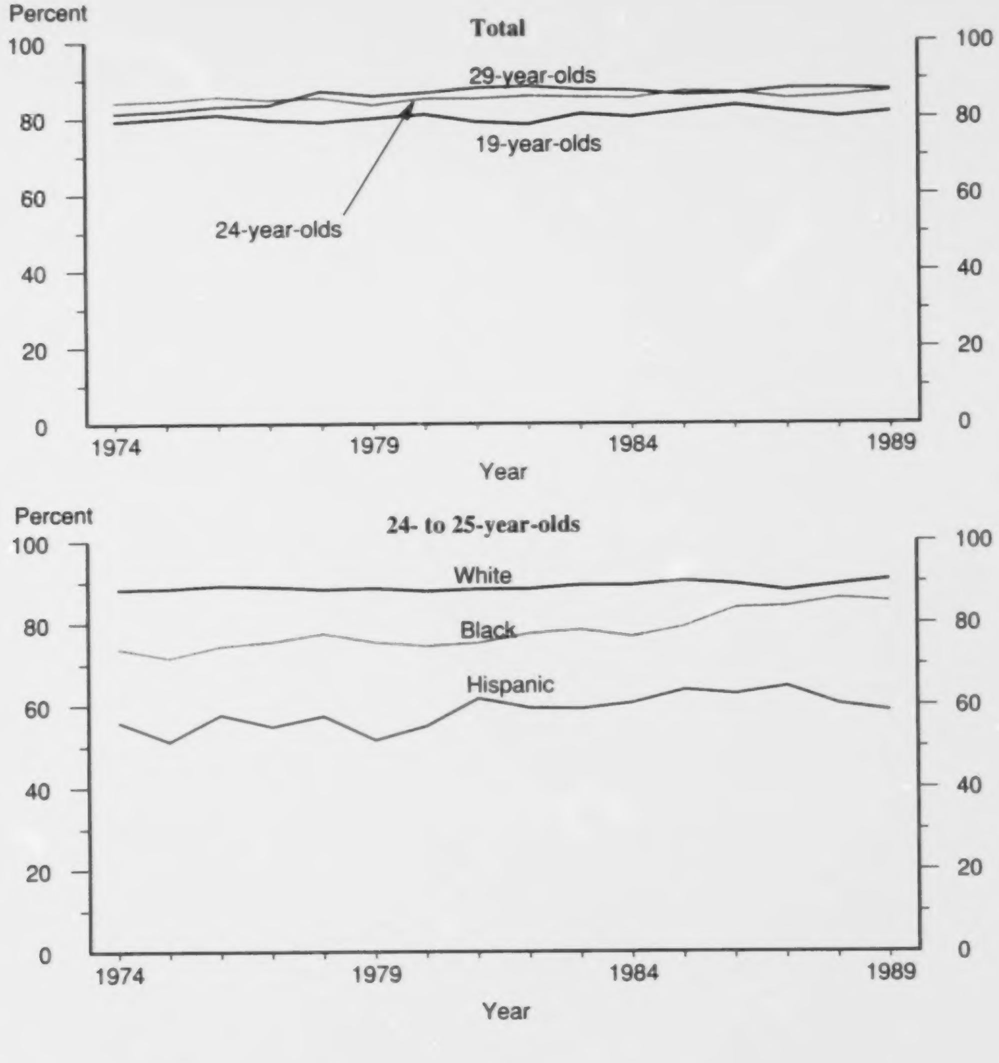
Percentage who have completed 12 or more years of school, by age and race/ethnicity: 1974–1989

				Age group - Race/ethnicity								
	All races			19- to 20-year-olds			24- to 25-year-olds			28- to 29-year-olds		
Year	Age 19	Age 24	Age 29	White	Black	Hispanic*	White	Black	Hispanic*	White	Black	Hispanic*
1974	79.1	84.1	81.2	84.6	65.7	58.8	88.2	73.8	56.0	85.3	68.9	48.5
1975	79.9	84.5	81.8	84.7	66.2	62.6	88.4	71.6	51.2	86.8	69.0	56.6
1976	80.8	85.5	83.0	85.1	67.6	57.3	89.1	74.3	57.7	87.1	70.4	49.7
1977	79.4	84.6	83.3	85.0	69.2	60.0	88.8	75.4	54.8	88.4	75.5	56.0
1978	78.8	85.1	86.9	85.2	67.0	56.0	88.1	77.4	57.4	89.3	78.4	56.2
1979	79.7	83.3	85.6	83.9	68.6	59.8	88.4	75.3	51.6	89.5	77.2	56.6
1980	80.8	84.9	86.4	85.5	71.1	51.2	87.7	74.3	54.9	89.8	79.8	59.3
1981	78.7	84.8	87.7	84.8	71.8	56.8	88.1	75.1	61.6	90.5	78.3	57.4
1982	78.1	85.5	88.0	84.7	69.4	58.8	88.2	77.3	59.2	90.6	81.7	61.5
1983	80.7	85.1	87.1	85.3	73.2	57.9	89.1	78.2	59.0	90.1	82.9	56.8
1984	79.9	84.8	86.8	85.3	75.4	63.0	89.0	76.6	60.4	89.6	79.4	60.1
1985	81.5	86.6	85.7	86.9	73.8	64.8	90.0	79.0	63.6	89.2	83.8	60.1
1986	82.9	86.2	86.0	87.8	74.9	65.8	89.3	83.5	62.6	89.7	81.7	59.4
1987	81.2	84.6	87.3	86.4	79.4	63.7	87.6	83.8	64.4	90.0	83.9	59.5
1988	79.8	85.3	87.3	87.1	73.6	53.6	89.1	85.7	60.0	89.9	84.3	58.3
1989	81.1	86.5	86.9	86.8	74.8	59.4	90.3	85.0	58.5	90.7	81.2	59.4

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment...," various years; October Current Population Survey.

Chart 1:4 High school completion, by age, and by race/ethnicity: 1974–1989



SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School enrollment...," various years; October Current Population Survey.

B. Student Performance

In a number of assessments of student achievement, relatively few U.S. students performed in the highest levels of proficiency. Additionally, wide gaps in proficiency scores separated white students from black and Hispanic students on every assessment. Some of these gaps, however, have been significantly narrowed in recent years. While scores for white students have tended to remain stable or slightly decline, those for black and Hispanic students have increased significantly. For example, in the assessment of reading, the average score for white 17-year-olds rose only 3 scale points since 1971, but the average score for black 17-year-olds rose almost 36 scale points and the average score for Hispanic 17-year-olds rose about 19 points. Similar but less dramatic trends are also evident for 13- and 9-year-olds (*Indicator 1:5*).

Writing results were quite similar to those from the reading assessments. There was little change between 1984 and 1988, and few students could perform at the highest levels of the scale. Minority group proficiency scores were still below those of whites (*Indicator 1:6*) .

Results from a 1988 national assessment of U.S. history suggest that high school seniors have some understanding of the people and events in U.S. history, but that this knowledge is rather superficial; generally, the ability to state the relationships among historical events, persons, and documents was not evidenced. White students received higher proficiency scores in U.S. history than minority students, and males tended to receive higher scores than females, although average differences were not as great (*Indicator 1:7*).

A 1988 civics assessment produced comparable results. Overall, half of high school seniors in 1988 displayed a detailed knowledge of major government structures and their function, but only 6 percent demonstrated a more developed understanding of a wide range of political institutions and processes (*Indicator 1:7*).

In a 1988 international assessment in both mathematics and science, U.S. students compared poorly. In both subject areas, U.S. students placed in the lowest group among six countries. Scores of the 13-year-old American students indicated that, on average, they could use only *basic* operations to solve simple problems in mathematics, and they could understand and apply only simple scientific principles in science. By contrast, 13-year-old Korean students, on average, were able to apply intermediate-level mathematics skills to solve two-step problems in mathematics, and in science, were able to use scientific procedures and analyze scientific data. Also, on the mathematics assessment, about 10 percent of U.S. students scored at the two highest levels of the test, and about 12 percent scored at the highest levels in science. A much greater percentage of Korean students scored at these strata: about 45 percent of Korean students placed in the highest levels in mathematics, and about 35 percent placed in the highest levels in science (*Indicator 1:8*).

Overall, college entrance examination scores have fallen modestly during the last few years. This finding is similar for both the SAT total score and the ACT composite score.* Since 1976, however, average mathematics scores on the SAT increased for black and Mexican-American students by 20 and 9 points, respectively. Black, Mexican-American, American Indian, Asian-American, and Puerto Rican students all scored gains since 1976 on the SAT mathematics assessment. Black students scored the greatest gain: an increase of 31 points (supplemental table 1:9-4).

In reviewing the indicators in this section, it should be noted that group average scores cannot show the range of individual proficiency. Indeed, some U.S. students scored higher on mathematics and science than some students from other countries. Nevertheless, there are some consistent aggregate trends. In brief, most U.S. students are not performing at the highest proficiency levels, and, while minority students are making significant gains in most areas, their average scores still fall well below those of whites.

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* The ACT was enhanced in 1990. Estimated composite results can be analyzed from 1986; comparisons prior to 1986 are not possible.

B. Student Performance

Indicator 1:5 Reading proficiency of 9-, 13-, and 17-year-olds

Reading skills are basic to the educational process. When students lag in their reading achievement, they may find it difficult to benefit from other aspects of the curriculum. In the future, poor readers may also find it difficult to participate effectively in an economy requiring increasingly sophisticated job skills.

- **Among most groups, reading proficiency did not improve between 1984 and 1988. The exception was for black 13- and 17-year-olds.**
- **In 1988, among 17-year-olds, whites averaged near the adept level, but blacks and Hispanics, on average, scored below the adept level.**
- **Since 1971, reading scores of blacks have risen considerably at all three age levels, while the scores of whites have not changed. For Hispanics, only 17-year-olds' reading scores have improved significantly since 1975.**
- **In 1988, while scores of both blacks and Hispanics were well below those of whites at all age levels, the gap had narrowed, especially for blacks at ages 13 and 17.**

Average reading proficiency, by age and race/ethnicity: 1971–1988 (scale score)

	Age 9				Age 13				Age 17			
Year	All races	White	Black	Hispanic	All races	White	Black	Hispanic	All races	White	Black	Hispanic
1971	[1] 207.3	213.8	[1] 170.0	—	255.2	260.9	[1] 222.4	—	[1] 285.4	291.4	[1] 238.6	—
1975	210.2	216.6	181.3	182.8	256.0	262.1	[1] 225.7	232.5	[1] 286.1	293.0	[1] 240.4	[1] 252.2
1980	214.8	221.3	189.2	189.5	258.5	264.4	[1] 232.4	236.8	285.8	293.1	[1] 242.5	260.7
1984	211.0	218.3	185.7	187.2	257.1	262.6	[1] 236.0	239.6	288.8	295.6	[1] 264.2	268.1
1988[2]	211.8	217.7	188.5	193.7	257.5	261.3	242.9	240.1	290.1	294.7	274.4	270.8

— Not available.

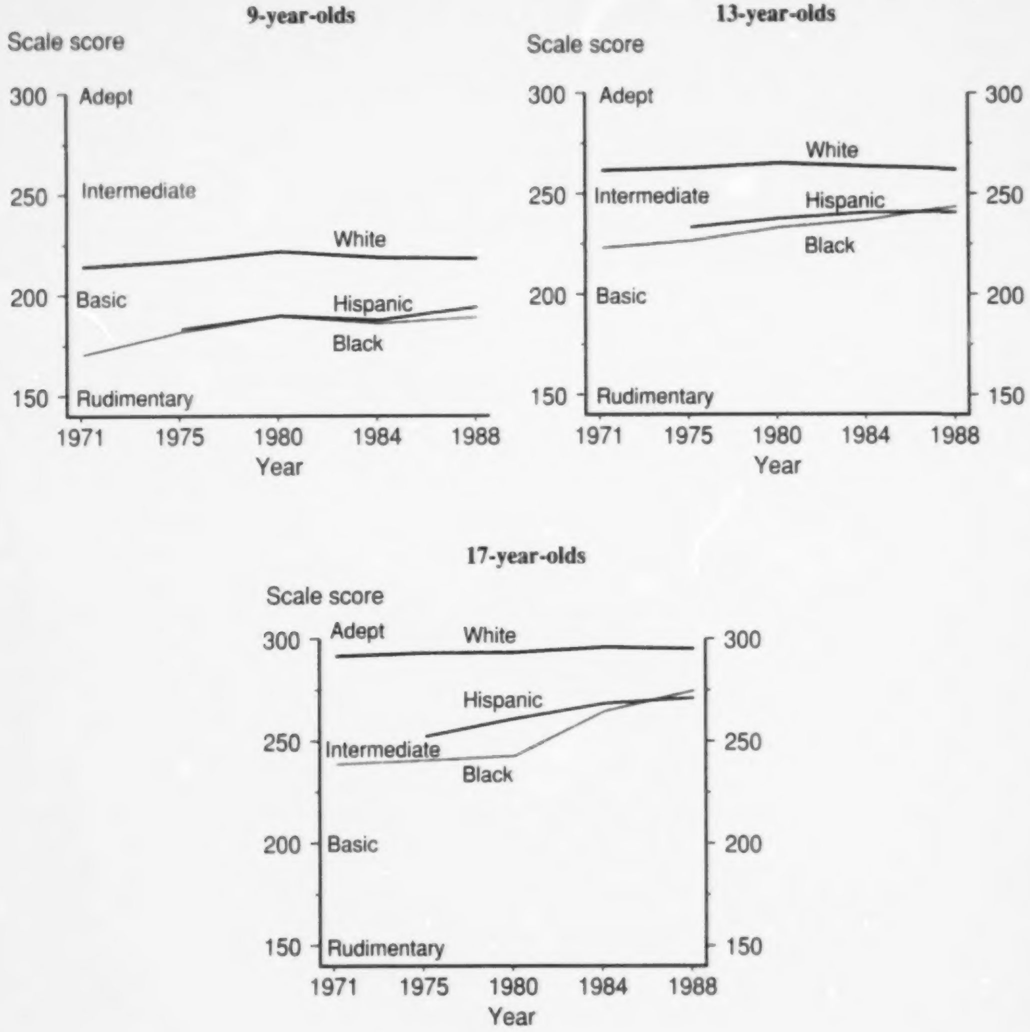
[1] Shows a statistically significant difference from 1988.

[2] Based on the 1988 reading bridge to 1984.

NOTE: Reading Proficiency Scale
Level 150: **Rudimentary** - Can carry out simple discrete reading tasks
Level 200: **Basic** - Can understand specific or sequentially related information
Level 250: **Intermediate** - Can search for specific information, interrelate ideas, and make generalizations
Level 300: **Adept** - Can find, understand, summarize, and explain relatively complicated information
Level 350: **Advanced** - Can synthesize and learn from specialized reading materials

SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971–1988: Trends from the Nation's Report Card,* 1990.

Chart 1:5 **Reading proficiency, by age and by race/ethnicity: 1971–1988**



SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971–1988: Trends from the Nation's Report Card*, 1990.

B. Student Performance

Indicator 1:6 Writing proficiency in grades 4, 8, and 11

Effective writing is fundamental for educational success. In a 1988 nationally representative sample, students in grades 4, 8, and 11 were assessed for writing skills. Students were evaluated on informative, persuasive, and imaginative writing.

- **For most groups, levels of writing proficiency in 1988 were approximately the same as in 1984.**
- **In 1988, whites continued to score higher than blacks or Hispanics at all three grade levels.**
- **Females consistently outscored males on the writing assessment in both 1984 and 1988, and at every grade level.**

Average writing proficiency scores[1] by race/ethnicity, grade and sex: 1984 and 1988 (scale score)

		Race/ethnicity			Sex	
Year	Total	White	Black	Hispanic	Male	Female
			Grade 4			
1984	170.5	177.2	148.2	159.7	165.0	[2] 176.7
1988	173.3	180.0	150.7	162.2	164.3	182.4
			Grade 8			
1984	212.4	[2] 217.9	188.3	194.2	[2] 204.5	220.5
1988	208.2	213.1	190.1	197.2	197.9	218.2
			Grade 11			
1984	223.0	229.1	204.2	200.6	211.9	234.5
1988	220.7	225.3	206.9	202.0	211.1	229.2

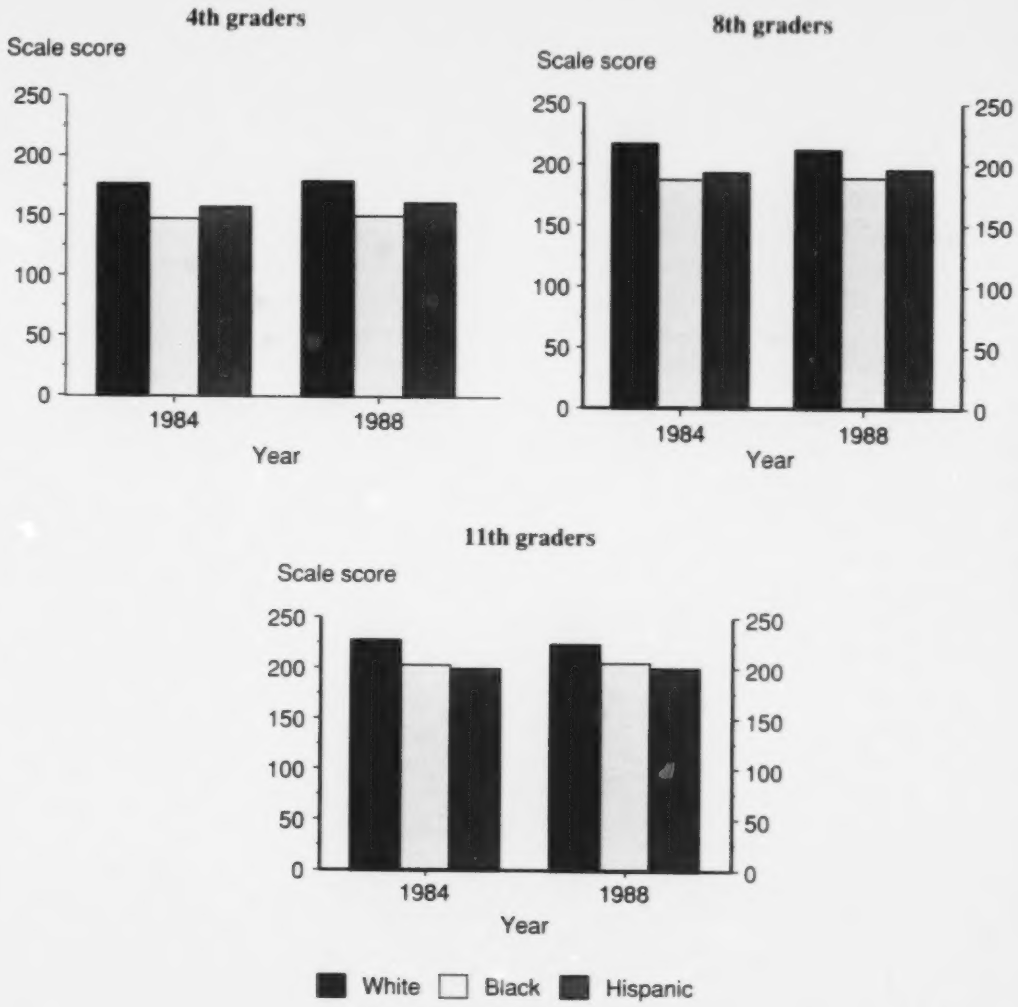
[1] Average NAEP writing assessment scores were produced using the Average Response Method (ARM). The ARM provides an estimate of average writing achievement for each respondent as if he or she took 11 of the 12 writing tasks given, and as if NAEP had computed average achievement across that set of tasks.

[2] Shows a statistically significant difference from 1988.

NOTE: Writing Proficiency Chart
Level 100: **Unsatisfactory** - Failed to reflect a basic understanding of the task
Level 200: **Minimal** - Recognized the elements needed to complete the task, but were not managed well enough to insure the intended purpose
Level·300: **Adequate** - Included features critical to accomplishing the purpose of the task and were likely to have the intended effect
Level 400: **Elaborated** - Beyond adequate, reflecting a higher level of coherence and elaboration

SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984–1988: Findings from the Nation's Report Card*, 1990.

Chart 1:6 **Writing proficiency in grades 4, 8, and 11, by race/ethnicity: 1984 and 1988**



SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984–1988: Findings from the Nation's Report Card*, 1990.

B. Student Performance

Indicator 1:7 U.S. history and civics proficiency

A knowledge of history provides the perspective needed to make sense of the present as well as the past, helping students understand the complex world in which they live. Likewise, civics education is considered necessary in helping prepare students to participate intelligently in a democratic society by giving them the background they need to make sense of civic issues.

- **On the history assessment, white students at all grade levels consistently scored much higher than either blacks or Hispanics. In the civics assessment, whites scored much higher than either blacks or Hispanics at each grade level.**
- **Males consistently outscored females in U.S. history at each grade level.**
- **Most high school seniors displayed a knowledge of beginning historical information, but far fewer appeared to understand the interrelationships among historical events, persons, and documents (supplemental table 1:7-3).**
- **In civics, half the 12th grade students displayed a detailed knowledge of major government structures and their functions, while just 6 percent demonstrated a more developed understanding of a wide range of political institutions and processes (supplemental table 1:7-4).**

Average U.S. history and civics proficiency in grades 4, 8, and 12, by sex, and race/ethnicity: 1988

Sex and race/ethnicity	U.S. history			Civics		
	Grade 4	Grade 8	Grade 12	Grade 4	Grade 8	Grade 12
Nation	220.6	263.9	295.0	214.0	259.7	296.3
Sex						
Male	222.9	266.2	298.5	214.8	258.7	298.6
Female	218.2	261.6	291.8	213.3	260.6	294.1
Race/ethnicity						
White	227.5	270.4	301.1	220.0	266.3	301.9
Black	199.5	246.0	274.4	198.1	243.6	273.8
Hispanic	202.7	244.3	273.9	199.5	240.6	279.2

NOTE: History Proficiency Scale

Level 200: Knows simple historical facts
Level 250: Knows beginning historical information and has rudimentary interpretive skills
Level 300: Understands basic historical terms and relationships
Level 350: Interprets historical information and ideas

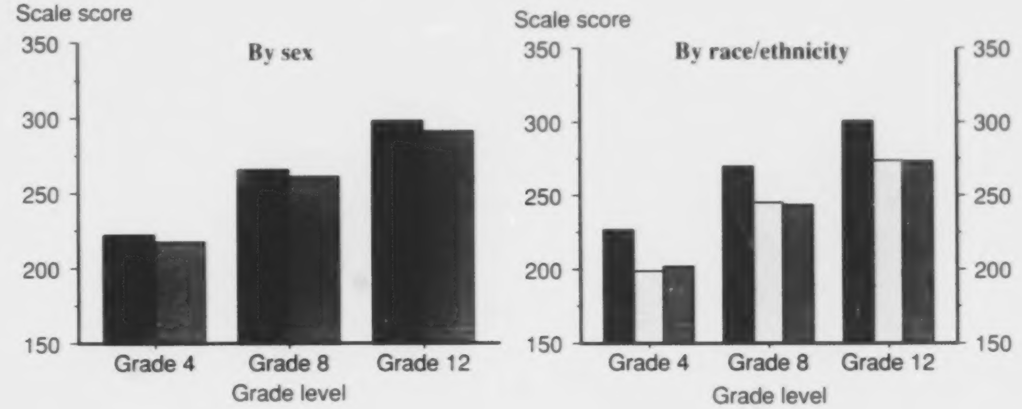
NOTE: Civics Proficiency Scale

Level 200: Recognizes the existence of civic life
Level 250: Understands the nature of political institutions; relationship between citizen and government
Level 300: Understands specific government structures and functions
Level 350: Understands a variety of political institutions and processes

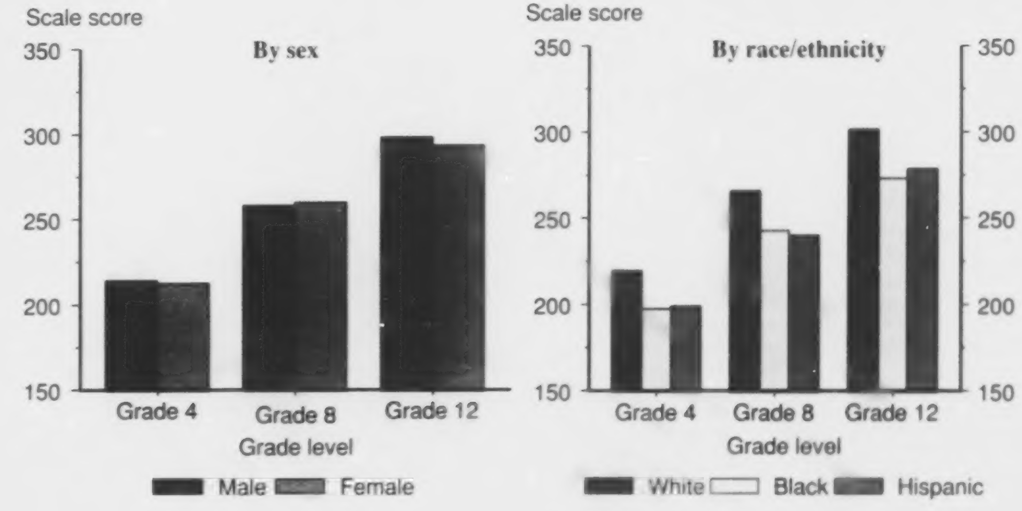
SOURCE: National Assessment of Educational Progress, *The U.S. History Report Card*, 1990; and *The Civics Report Card*, 1990.

Chart 1:7 **Average U.S. history and civics proficiency, by grade, sex and race/ethnicity: 1988**

History



Civics



SOURCE: National Assessment of Educational Progress, *The U.S. History Report Card*, 1990; and *The Civics Report Card*, 1990.

B. Student Performance

Indicator 1:8 International proficiency in mathematics and science

The mathematics and science skills of a nation's workers are a crucial element of economic competitiveness. The fastest growing industries in the world today are in the knowledge-based high technology sector, and without better mathematics and science skills among workers, U.S. firms will be unable to compete.

- **In the 1988 International Assessment of Educational Progress, on average, U.S. 13-year-olds scored in the lowest group in both mathematics and science proficiency.**
- **In mathematics, 45 percent of the Korean students demonstrated the ability to deal with complex concepts, compared to 10 percent of U.S. students. Similarly, 35 percent of the Korean students could apply intermediate scientific principles, compared to 13 percent of U.S. students (supplemental tables 1:8-1 and 1:8-3).**

Average mathematics and science proficiencies of 13-year-old students by countries/provinces

	Mathematics	
Group	Country/province	Proficiency level
1	Korea	567.8
2	Quebec (French)	543.0
	British Columbia	539.8
	Quebec (English)	535.8
	New Brunswick (English)	529.0
3	Ontario (English)	516.1
	New Brunswick (French)	514.2
	Spain	511.7
	United Kingdom	509.9
	Ireland	504.3
4	Ontario (French)	481.5
	United States	473.9

	Science	
Group	Country/province	Proficiency level
1	British Columbia	551.3
	Korea	549.9
2	United Kingdom	519.5
	Quebec (English)	515.3
	Ontario (English)	514.7
	Quebec (French)	513.4
	New Brunswick (English)	510.5
	Spain	503.9
3	United States	478.5
	Ireland	469.3
	Ontario (French)	468.3
	New Brunswick (French)	468.1

Note: Mathematics Proficiency Scale
Level 300= Performs simple addition and subtraction
Level 400= Uses basic operations to solve simple problems
Level 500= Uses intermediate level skills to solve two-step problems
Level 600= Uses measurement and geometry to solve more complex problems
Level 700= Understands and applies more advanced mathematical concepts

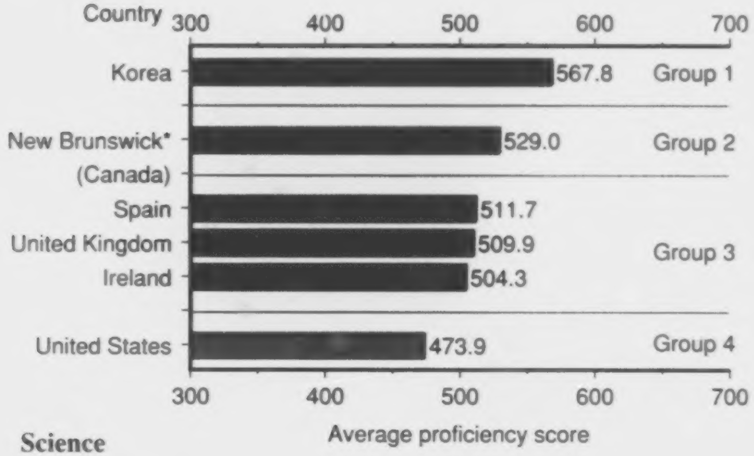
Science Proficiency Scale
Level 300= Knows everyday science facts
Level 400= Understands and applies simple scientific principles
Level 500= Uses scientific procedures and analyzes scientific data
Level 600= Understands and applies scientific knowledge and principles
Level 700= Integrates scientific information and experimental evidence

NOTE: Differences in performance between the groups are statistically significant at the 0.05 level; differences in performance within groups are not statistically significant.

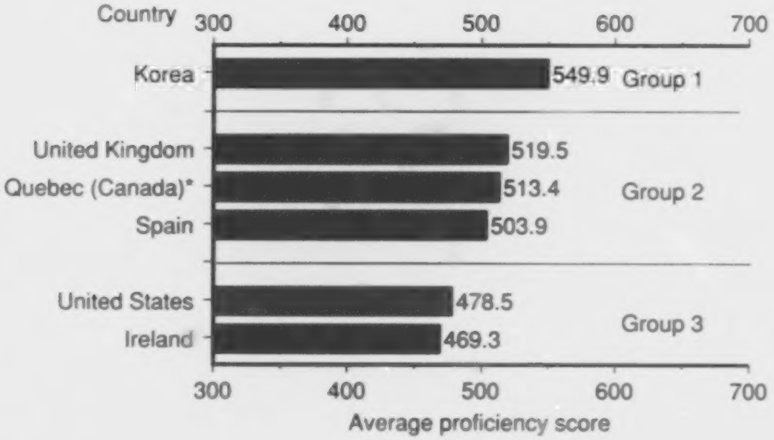
SOURCE: International Assessment of Educational Progress, *A World of Differences: An International Assessment of Mathematics and Science*, 1989.

Chart 1:8 Average mathematics and science proficiency of 13-year-old students in six countries: 1988

Mathematics



Science



* New Brunswick (English) and Quebec (French) are the median groups of the seven groups assessed in four Canadian provinces in mathematics and science, respectively.

SOURCE: International Assessment of Educational Progress, *A World of Differences: An International Assessment of Mathematics and Science*, 1989.

Indicator 1:9 College entrance examination scores

The Scholastic Aptitude Test (SAT) and the American College Testing Program Assessment (ACT) are the tests taken most frequently by college-bound students. Both are designed to predict success in the freshman year in college. These tests summarize the performance outcomes of our high schools for our college-bound youth.

- **During most of the 1980s, SAT scores increased even as the proportion of students taking the test increased.**
- **After years of decline, SAT total scores began increasing slightly in 1982, and continued increasing until 1987. From 1987 to 1990, SAT mathematics scores remained constant, and verbal scores fell 6 points (supplemental table 1:9-1).**
- **Between 1976 and 1990, on average, black students' SAT mathematics scores increased by 31 points, and verbal scores increased by 20 points (supplemental table 1:9-4).**

SAT scores and percent taking SAT: Selected school years ending 1973–1990

School year ending	SAT total	Verbal	Mathematics	Percent taking SAT[1]
1973	926	445	481	33.4
1974	924	444	480	32.1
1976	903	431	472	31.8
1978	897	429	468	31.6
1980	890	424	466	32.6
1982	893	426	467	33.0
1984	897	426	471	34.9
1986	906	431	475	37.9
1988	904	428	476	40.5
1990	900	424	476	38.5

ACT scores and percent taking ACT: Selected school years ending 1986–1990

School year ending	ACT Composite	English	Mathematics	Percent taking ACT[1]
1986[2]	20.8	—	—	27.6
1988[2]	20.8	—	—	30.1
1990[2]	20.6	20.5	19.9	30.7

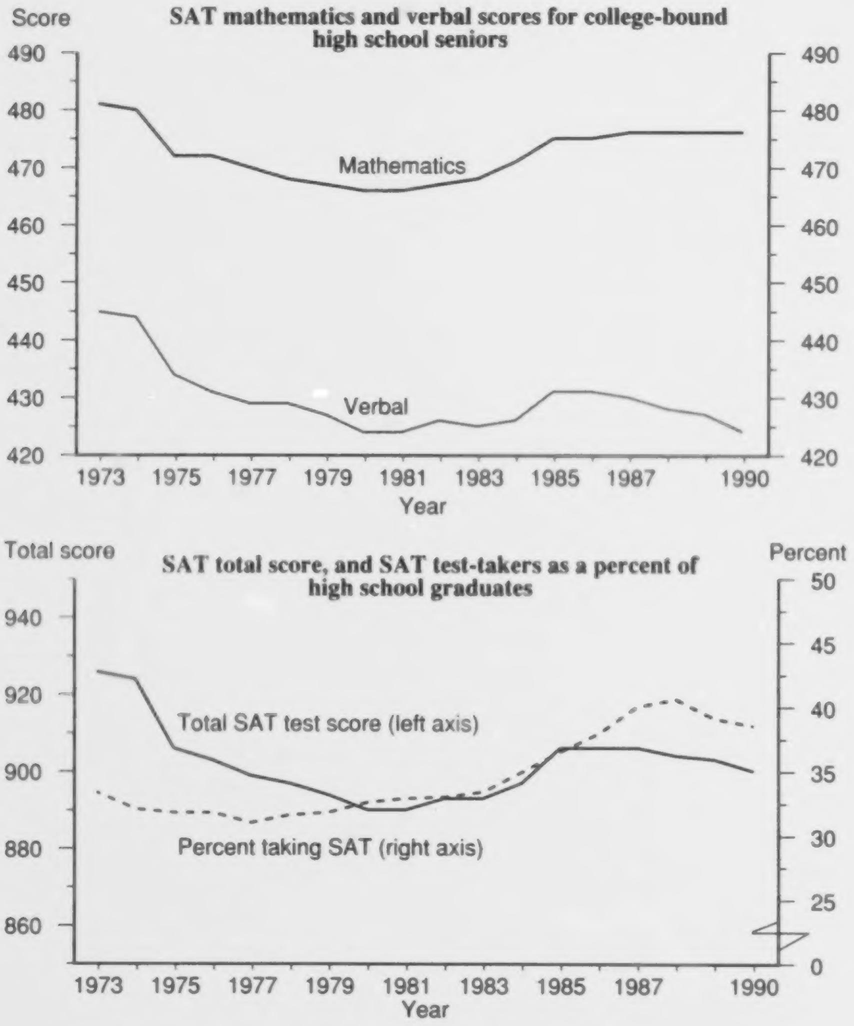
— Not available.

[1] The percent taking the SAT or ACT is the ratio of the number of individuals taking the SAT or ACT in the year to the number of high school graduates in the same year.

[2] The 1990 ACT assessment was significantly different from previous assessments. ACT has established links between scores earned on the ACT tests administered before October 1989 and scores on the enhanced test. The data for 1986 and 1988 are estimated average ACT scores.

SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors*, various years; The American College Testing Program, *The High School Profile Report, Normative Data*, various years; U.S. Department of Education, National Center for Education Statistics, Common Core of Data survey.

Chart 1:9 Trends in college entrance examination scores: 1973–1990



SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors*, various years; The American College Testing Program, *The High School Profile Report, Normative Data*, various years; U.S. Department of Education, National Center for Education Statistics, Common Core of Data survey.

C. Economic Outcomes

Education is an investment in human skills. Like all investments, it involves both a cost and a return. The cost of finishing high school is quite low, for it principally includes the earnings given up by not working or not working full time while still in the first 12 years of school. In this case, the forgone earnings are the earnings of high school dropouts 16–19 years old, which are low. In contrast, the returns come in many forms. Some are monetary, others are not. Some are related to the labor market, others are not. Among the returns related to the labor market are better employment opportunities, jobs that are less sensitive to general economic conditions, better opportunities to participate in employer-provided training, and higher earnings. Other returns not related to the labor market include greater interest and participation in civic affairs, better health and longer life, and reduced criminal behavior.

The costs of and returns to investing in education change over time,[1] affecting the incentive to finish high school. The purpose of the measures presented in this section is to provide indicators of changes in the rewards to finishing high school, or conversely, the penalties of not finishing.

These indicators suggest some general conclusions. First, the immediate difficulty of making the transition from full-time school attendance to full-time work appears much greater for those who leave school before finishing high school. In October 1989, of young people who had left high school during the previous year without finishing only 47 percent were employed. In contrast, of those who had graduated from high school in 1989 and did not enroll in college 72 percent were employed. Among college graduates in 1986 not continuing to graduate school, the employment rate was more than 90 percent one year after graduation.[2]

Time is likely to solve some of the initial problems in making the transition from school. For example, of males who graduated from high school in 1989 and did not enroll in college the following October, 78 percent were employed. Most of these high school graduates were 18 to 20 years old. Among males 25 to 34 years old with 12 years of schooling, 89 percent were employed. This sugggests that as high school graduates who do not go on to college get older, the percentage employed rises. Nevertheless, how long it takes to solve the initial transition to work problem is an indication of its difficulty.

---

[1] See Murphy, Kevin and Finis Welch, "Wage Premiums for College Graduates: Recent Growth and Possible Explanations." *Educational Researcher*, May 1989, for a more detailed presentation of changes between 1964 and 1986 in the relative earnings of workers with different levels of education and experience, by sex and race.

[2] U.S. Department of Education, Survey of Recent College Graduates, 1987, unpublished tabulation.

Second, labor market opportunities for high school graduates at any age have consistently been better than for those who do not finish high school. For males, 89 percent of high school graduates 25–34 years old were employed in 1990 versus 76 percent of those who had not finished high school. For females, the figures were 68 and 44 percent, an even larger disparity. On the other hand, for males there appeared to be a downward drift in labor market opportunities for both high school graduates and dropouts, although the decline was larger for the latter group. For example, the employment rate of male high school graduates 25–34 years old was an average of 91 percent between 1971 and 1979, but this rate declined to an average of 86 percent between 1980 and 1988.

Third, between 1985 and 1989, the earnings penalty of not finishing high school (compared to finishing and not continuing on to college) was an average of 28 and 29 percent for white and black males, respectively. The earnings penalty was larger for females—38 percent. For white males, there is some evidence that the earnings penalty is growing.

C. Economic Outcomes

Indicator 1:10 Transition from school to work

The transition from school to work can be difficult. Without prior job experience or specialized training, school leavers may find it more difficult to win jobs, and they may be dissatisfied with those that they do find. The employment rate among school leavers, both those who have not finished high school and those who have but did not go on to college, is an indication of the ease of making the transition.

- **Fewer than half of recent high school dropouts had a job in October 1989. Recent high school graduates fared better—72 percent had jobs. However, more than a quarter—28 percent—were either unemployed or not looking for work.**
- **In 1989, only 55 percent of black recent high school graduates were employed compared to 75 percent of white graduates. Black recent high school dropouts are about half as likely to be employed as their white counterparts.**
- **The gap in employment rates between recent high school graduates and high school dropouts has grown slightly during the last three decades.**

Employment rate for recent high school dropouts and high school graduates not enrolling in college by race/ethnicity: Selected years, 1960–1989

	Recent high school graduates				Recent high school dropouts			
Year	Total	White	Black	Hispanic[1]	Total	White	Black	Hispanic[1]
1960	65.0	67.0	—	—	50.9	48.7	—	—
1962	68.3	69.3	—	—	40.4	39.5	—	—
1964	63.4	64.6	—	—	41.6	39.2	—	—
1966	64.9	67.1	—	—	51.4	53.5	—	—
1968	67.3	68.5	—	—	50.0	53.0	—	—
1970	63.2	65.6	—	—	44.7	48.4	—	—
1972	70.1	72.9	—	—	46.0	47.3	—	—
1974	69.1	72.1	—	—	48.1	52.1	—	—
1976	68.9	72.9	—	—	43.5	48.8	—	—
1977	71.9	75.4	43.2	—	50.2	54.6	33.1	—
1978	74.0	78.5	45.5	—	49.7	52.1	39.2	—
1979	72.4	76.0	43.5	—	48.8	52.9	29.1	—
1980	68.9	74.4	34.8	—	43.7	49.5	21.9	—
1981	65.9	71.6	32.2	([2])	40.5	48.7	12.5	45.1
1982	60.4	66.5	29.1	43.4	36.8	42.9	14.8	([2])
1983	62.9	69.8	34.9	([2])	43.2	47.4	25.8	45.6
1984	64.0	68.6	44.7	49.5	42.9	47.4	22.9	35.2
1985	62.0	68.8	34.4	([2])	43.5	46.7	29.5	37.7
1986	65.2	70.8	42.0	64.9	46.1	47.4	32.2	45.7
1987	68.9	72.8	46.9	53.8	41.2	46.1	26.1	([2])
1988	71.9	76.4	55.5	57.1	43.5	48.9	23.4	55.4
1989	71.9	75.2	55.3	49.3	47.1	54.3	27.7	([2])

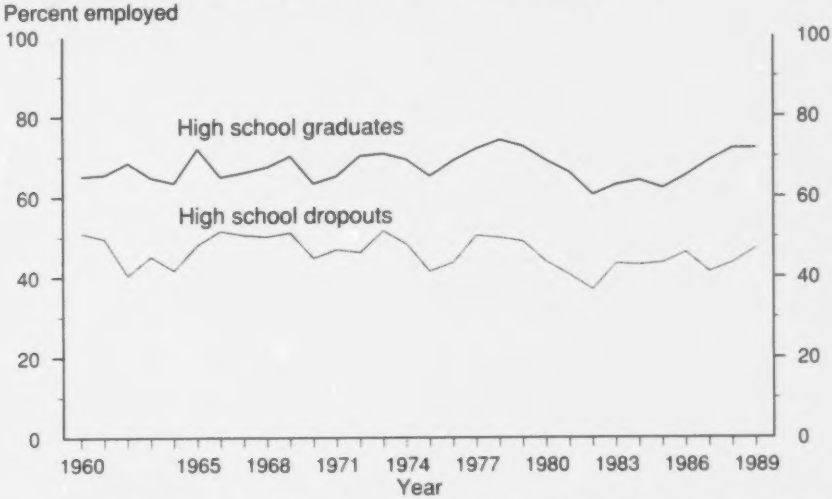
— Not available.

[1] Hispanics may be of any race.

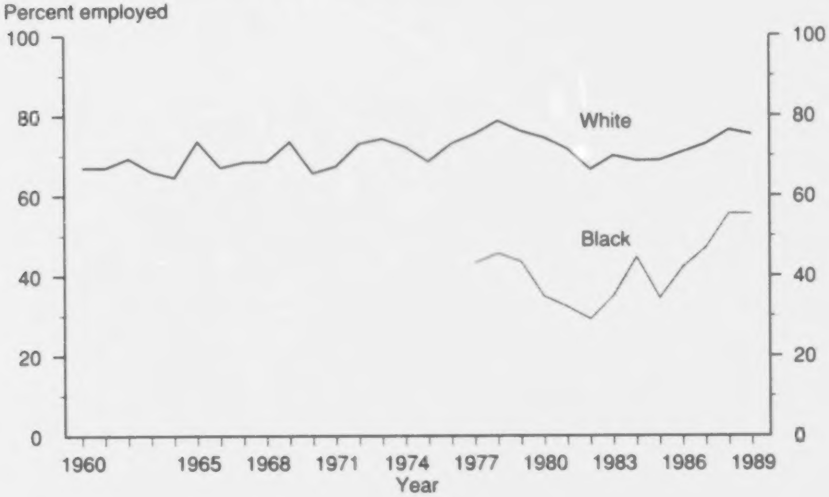
[2] Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Chart 1:10 Employment rate of recent high school dropouts and high school graduates not enrolling in college: 1960–1989



Employment rate of recent high school graduates not enrolling in college, by race/ethnicity: 1960–1989



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

C. Economic Outcomes

Indicator 1:11 Employment of young adults

The percentage of a population group with jobs is influenced by a variety of factors. Some influence the willingness of employers to offer jobs to individuals with different levels of education at the going wage rate, and, others influence the willingness of these individuals to take jobs at the going wage rate. The higher the proportion employed, the better are their labor market opportunities relative to other things they could do, and vice versa.

- **Employment rates are higher for those with more education.**
- **During the 1980s, employment rates among males with 12 years of schooling or less were lower than during the 1970s and unemployment rates were higher (supplemental table 1:11-3).**
- **Among women 25-34 years old, the employment rate of both those with 12 years of schooling and those with 9 to 11 years of schooling rose between 1971 and 1990. However, it rose much less for those who did not finish high school.**

Employment rate of 25- to 34-year-olds, by sex and years of schooling completed: 1971–1990

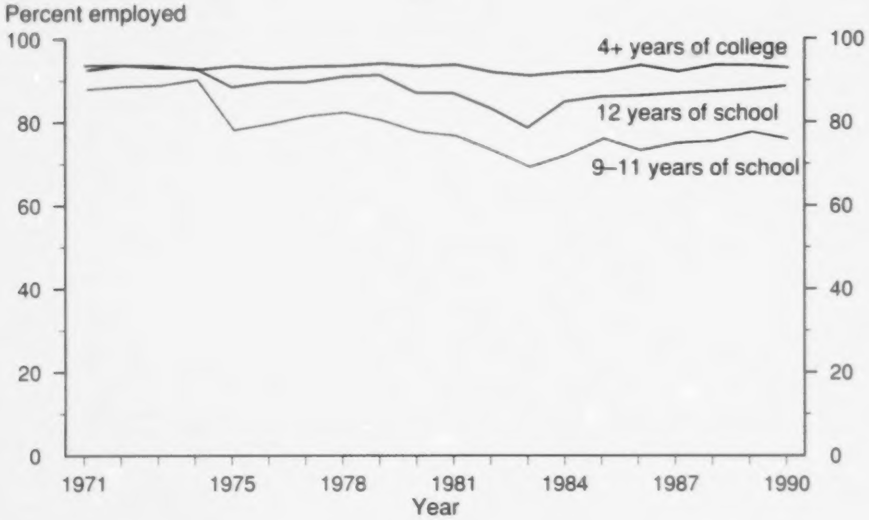
	Male				Female			
Year	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
					Percent			
1971	87.9	93.6	89.9	92.5	35.2	43.1	44.9	56.9
1972	88.5	93.7	90.4	93.6	36.1	44.9	47.4	59.8
1973	88.8	93.1	88.5	93.5	38.4	45.7	51.0	62.6
1974	90.2	93.0	90.0	92.7	39.8	47.6	54.2	66.6
1975	78.1	88.4	87.6	93.5	34.5	48.0	53.6	66.4
1976	79.6	89.6	89.0	92.8	39.5	49.8	56.5	68.8
1977	81.5	89.5	89.1	93.3	41.0	53.0	58.0	69.5
1978	82.4	90.8	91.2	93.5	42.4	55.9	63.3	72.1
1979	80.5	91.3	90.9	94.1	43.2	58.0	64.2	74.0
1980	77.7	87.0	88.5	93.4	45.6	59.5	66.3	75.5
1981	76.7	86.9	88.5	93.7	42.7	61.3	67.6	76.4
1982	73.2	83.3	85.2	91.9	39.7	59.6	68.2	77.7
1983	69.3	78.6	83.8	91.1	37.1	58.8	68.3	79.2
1984	72.2	84.8	87.9	91.9	41.5	61.0	69.5	80.4
1985	76.0	86.1	89.7	92.2	40.3	63.9	71.0	80.6
1986	73.3	86.2	89.0	93.7	44.1	63.8	70.6	80.3
1987	75.0	86.8	89.0	92.1	44.0	65.6	72.2	81.4
1988	75.5	87.2	89.8	93.7	46.9	66.8	74.8	81.2
1989	77.6	87.8	91.1	93.7	43.0	66.9	74.0	82.1
1990	75.9	88.6	89.7	93.1	44.3	67.5	74.5	83.2

NOTE: See supplemental note 1:11 for a comparison of the employment to population ratio, presented in this table, to other labor force statistics.

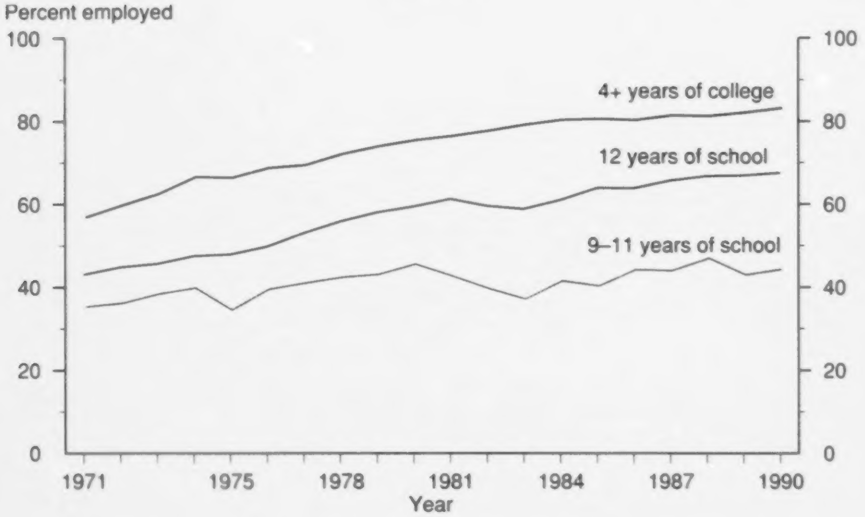
SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Chart 1:11 **Percent of population 25-34 years old employed: 1971–1990**

Male



Female



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

C. Economic Outcomes

Indicator 1:12 Annual earnings of young adults

Wages and salaries are influenced by many factors. Among these are the employer's perception of the productivity of employees with different levels of education and the availability of workers with different levels of education. They are also affected by economic conditions in the industries that typically employ workers with different levels of education. *Annual* earnings are influenced by the number of weeks worked in a year and the usual hours worked each week. The ratio of annual earnings of high school dropouts to those of high school graduates is affected by all these factors; it is a measure of the earnings disadvantage of not finishing high school.

- **In recent years (1985–89), the earnings disadvantage of not finishing high school was 28 and 29 percent for white and black males 25–34 years old, respectively. For both white and black females, the disadvantage was larger—about 38 percent.**
- **For white males the earnings disadvantage of not finishing high school was larger in recent years than it had been in the last half of the 1970s—it increased from 21 to 28 percent.**

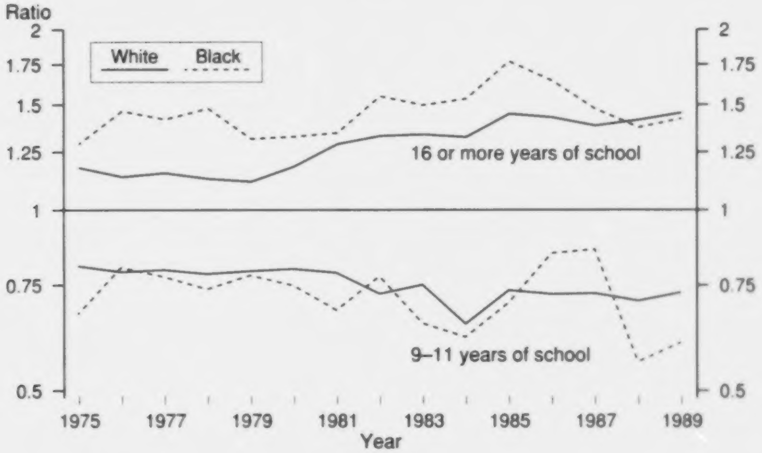
Ratio of median annual earnings of wage and salary workers 25 to 34 years old with 9-11 and 16 or more years of school to those with 12 years of school, by sex and race/ethnicity: 1975–1989

	9-11 years of school				16 or more years of school			
	Male		Female		Male		Female	
Year	White	Black	White	Black	White	Black	White	Black
1975	0.81	0.67	0.65	0.60	1.18	1.29	1.74	1.70
1976	0.79	0.80	0.61	0.58	1.14	1.41	1.61	1.58
1977	0.79	0.77	0.62	0.63	1.15	1.42	1.53	1.61
1978	0.78	0.74	0.55	0.48	1.13	1.48	1.58	1.38
1979	0.79	0.78	0.71	0.66	1.11	1.31	1.56	1.53
1980	0.80	0.75	0.63	0.73	1.18	1.33	1.54	1.65
1981	0.78	0.68	0.62	0.56	1.29	1.34	1.55	1.58
1982	0.72	0.77	0.66	0.69	1.33	1.55	1.61	1.65
1983	0.75	0.65	0.66	0.65	1.34	1.50	1.69	1.59
1984	0.64	0.61	0.58	0.52	1.32	1.53	1.59	1.68
1985	0.73	0.70	0.62	0.66	1.45	1.77	1.64	1.76
1986	0.72	0.85	0.62	0.78	1.43	1.64	1.74	1.92
1987	0.72	0.86	0.70	0.56	1.38	1.47	1.72	1.93
1988	0.70	0.56	0.53	0.62	1.41	1.37	1.78	1.93
1989	0.73	0.60	0.66	0.50	1.45	1.42	1.89	2.05

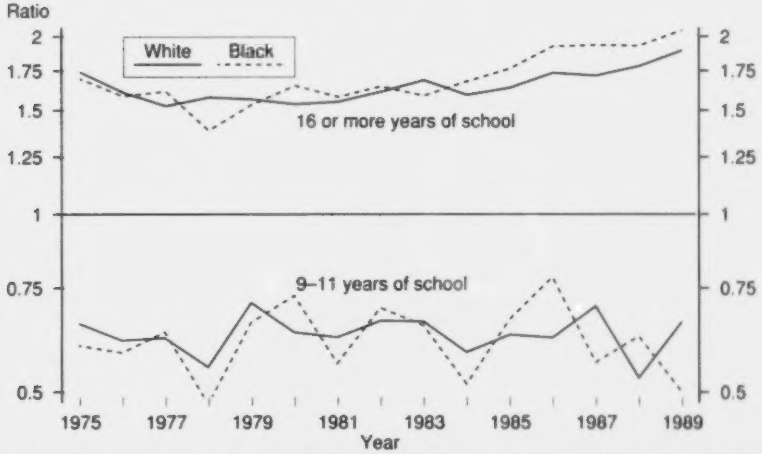
SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, and unpublished tabulations from the March Current Population Survey.

Chart 1:12 **Ratio of median annual earnings of wage and salary workers 25 to 34 years old with 9–11 and 16 or more years of school to those with 12 years of school, by sex and race/ethnicity: 1975–1989**

Male



Female



NOTE: One on the scale represents earnings equal to those with 12 years of school; 2 represents double their earnings; .5 represents half their earnings. The scale on the graph makes the distance between 1 and 2, or doubling, the same as between 1 and .5, or halving.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, and unpublished tabulations from the March Current Population Survey.

D. Student Participation in Various Curricula

Much federal and state education policy has been targeted at specific curricula and course-taking patterns. An attempt has been made to determine the composition of the curriculum, and the student participation in various courses and curricula.

Since 1977, the U.S. Department of Education has presented an annual report to Congress on the implementation of the Education of the Handicapped Act (PL. 94-142). A few patterns have emerged. Both the number and percentage of students enrolling in the federally funded programs for the handicapped rose from 1977 until the mid-1980s; since then, the number of children served by these programs has stabilized. But participation by type of handicap within the federal programs has varied widely. For example, in 1977, learning-disabled children made up only 1.8 percent of total enrollment. By 1989, that figure was almost 5 percent. Moreover, by 1989, learning-disabled children accounted for about 44 percent of all handicapped children enrolled in federally supported programs for the handicapped, up from 22 percent in 1977. The increases in this category account for almost all of the increases experienced by the federally supported programs for the handicapped (*Indicator 1:13*).

Participation in secondary special education classes is not equal between the sexes or among different race groups. While males constitute about half of school enrollment, they accounted for more than two-thirds of the students in special education classes in 1987. Black students make up 12 percent of school enrollment, but in 1987 they accounted for almost 25 percent of the students in special education. Students who come from homes in which the head has a high school diploma or less constitute about 59 percent of school enrollment, but they composed 77 percent of all students in federally supported special education classes. The composition of special education classes, therefore, is considerably different from the general school population (*Indicator 1:13*).

In 1983, the U.S. Department of Education published the landmark report *A Nation at Risk*. It contained recommendations about ways to strengthen instruction in core subject areas, including mathematics and science. Among other recommendations, the report suggested that all high school graduates should earn at least 3 credits in mathematics and science. It appears that these suggestions were heeded. In nearly every type of mathematics course there was a significant increase in the percent of students taking the course. Between 1982 and 1987, for example, the percentage of students taking algebra I increased by 11 percent; geometry, by almost 16 percent; and trigonometry, by 7 percent. Similar gains were posted in science. Between 1982 and 1987, the percentage of students taking biology grew by 13 percent; chemistry, by almost 14 percent; and physics, by almost 6 percent. The trend is that a greater percentage of high school graduates are taking more advanced mathematics and science courses. However, these course-taking patterns do not provide information about the content of the course, or whether the content of courses of the same title might be changing over time (*Indicator 1:14*).

Computer use is becoming increasingly common in the day-to-day activities of many Americans. As the economy becomes more technologically based, computers will play an increasingly prominent role. Many schools have recognized this and incorporated computer applications in varying ways into their curricula. In 1989, about 46 percent of U.S. students were using computers in schools. This is a substantial increase from the 29 percent who did so in 1984. Also, the percentage of students using computers within every family income quartile increased significantly between 1984 and 1989. However, in both 1984 and 1989, the percentage of computer use in school was not even across family income quartiles. Students from the lowest quartile used computers least, while those from the highest quartile were most likely to use them. The percent of students with a computer at home rose from 16 percent in 1984 to almost 28 percent in 1989. However, while 73 percent of the students who have a computer at home use it, only about 35 percent of these students use their computer for school assignments (*Indicator 1:15*).

In conclusion, enrollment in various curricula present something of a mixed picture. Overall, science and mathematics course-taking patterns are encouraging, with a substantial increase in the students taking advanced courses in both of these areas. Computer use is increasing at all levels, but students from lower income families are less likely to use computers than students from higher income families. In addition, of the students who have home computers, slightly more than one-third use it for assignments. Consequently, a valuable tool is not yet fully utilized. Finally, the percent of students receiving special education services appears to be leveling off, with almost all the increase having come in the learning disabled category. Students in special education classes are disproportionately male and black, and they tend to have parents with limited education.

D. Student Participation in Various Curricula

Indicator 1:13 Special education enrollment in federally supported programs

The Education of the Handicapped Act ensures the availability of "free and appropriate education" to all children with handicapping conditions. To determine compliance with this and other related mandates, policymakers must have data indicating who has been receiving special services.

- **In 1985–86, males, blacks, and children from households in which the head had not attended college were over represented in special education classes.**
- **A large increase in the proportion of children served by the Education of the Handicapped Act occurred between 1977 and the mid-1980s. Since then, this proportion has been fairly stable.**

Percentage of students in special education classes and disability concentration ratio, by individual and family characteristics at the secondary level: 1985–1986

Characteristic	Percent of 1987 secondary students in special education classes	Percent of 1980 sophomores	Disability concentration ratio*
Sex			
Male	68.5	49.7	1.4
Female	31.5	50.3	0.6
Race/ethnicity			
White	65.0	70.0	0.9
Black	24.2	12.2	2.0
Hispanic	8.1	12.6	0.6
Other	2.7	5.2	0.5
Educational attainment of household head			
Less than high school graduate	41.0	31.1	1.3
High school graduate	36.0	27.8	1.3
Some college/2-year degree	14.0	20.9	0.7
College graduate or more	8.9	13.6	0.7

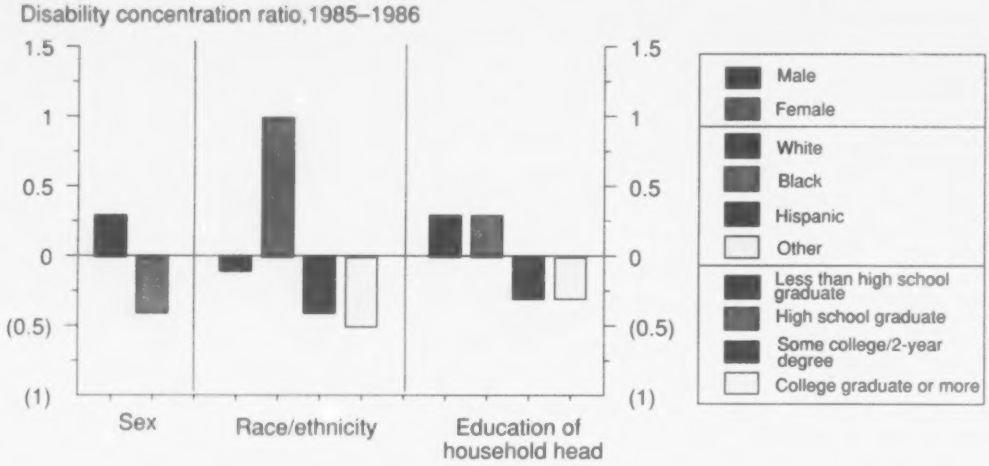
Children served in federally supported education programs for the handicapped, by type of handicap, as a percent of public K–12 enrollment: Selected years 1977–1989

Type of handicap	1977	1979	1981	1983	1985	1987	1988	1989
All conditions	8.3	9.1	10.1	10.7	11.0	11.0	11.1	11.3
Learning disabled	1.8	2.7	3.6	4.4	4.7	4.8	4.8	4.9
Speech impaired	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4
Mentally retarded	2.2	2.1	2.0	1.9	1.8	1.6	1.5	1.4
Seriously emotionally disturbed	0.6	0.7	0.9	0.9	1.0	1.0	0.9	0.9

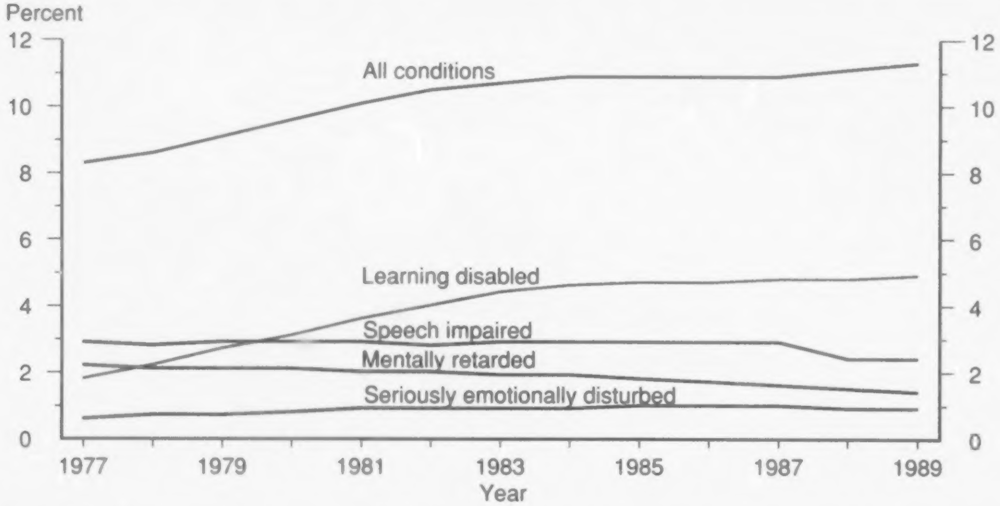
* Disability concentration ratio is the percent of all students in special education classes divided by percent of all 1980 sophomores in a category (e.g., percent of males in special education divided by percent of 1980 male sophomores).

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, National Longitudinal Transition Study, *Youth with Disabilities During Transition: An Overview of Descriptive Findings from the National Longitudinal Transition Study*, May, 1989; *Annual Report to Congress on the Implementation of the Handicapped Act*, various years.

Chart 1:13 Special education enrollment in federally supported programs



Percent of total enrollment in federally supported programs for the handicapped: 1977–1989



SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, National Longitudinal Transition Study, *Youth with Disabilities During Transition: An Overview of Descriptive Findings from the National Longitudinal Transition Study*, May, 1989; *Annual Report to Congress on the Implementation of the Handicapped Act*, various years.

D. Student Participation in Various Curricula

Indicator 1:14 Mathematics and science course-taking patterns

In 1983, the National Commission on Excellence in Education issued the report *A Nation at Risk*, recommending that schools adopt more rigorous standards and have higher expectations for academic performance and student conduct. Among the specific recommendations, students were advised to take a minimum of 3 credits in mathematics and science.

- **The percentage of students taking mathematics courses (except remedial and below-grade math courses, and statistics and probability), increased significantly between 1982 and 1987 (supplementary table 1:14-1).**
- **In 1982, 33 percent of all high school graduates had taken a remedial or below-grade math course. This percentage dropped 8 percentage points to 25 percent in 1987.**
- **In 1987, 76 percent of all high school graduates earned a credit in algebra I, 62 percent in geometry, and 47 percent in algebra II.**
- **The percent of high school graduates who had taken biology, chemistry, or physics increased by 13, 14, and 6 percentage points respectively between 1982 and 1987.**
- **Between 1982 and 1987, the enrollment of blacks increased significantly in almost every mathematics and most science course. The enrollment of Hispanics in mathematics and science courses increased similarly.**

Percentage of high school graduates taking selected math and science courses: 1982 and 1987

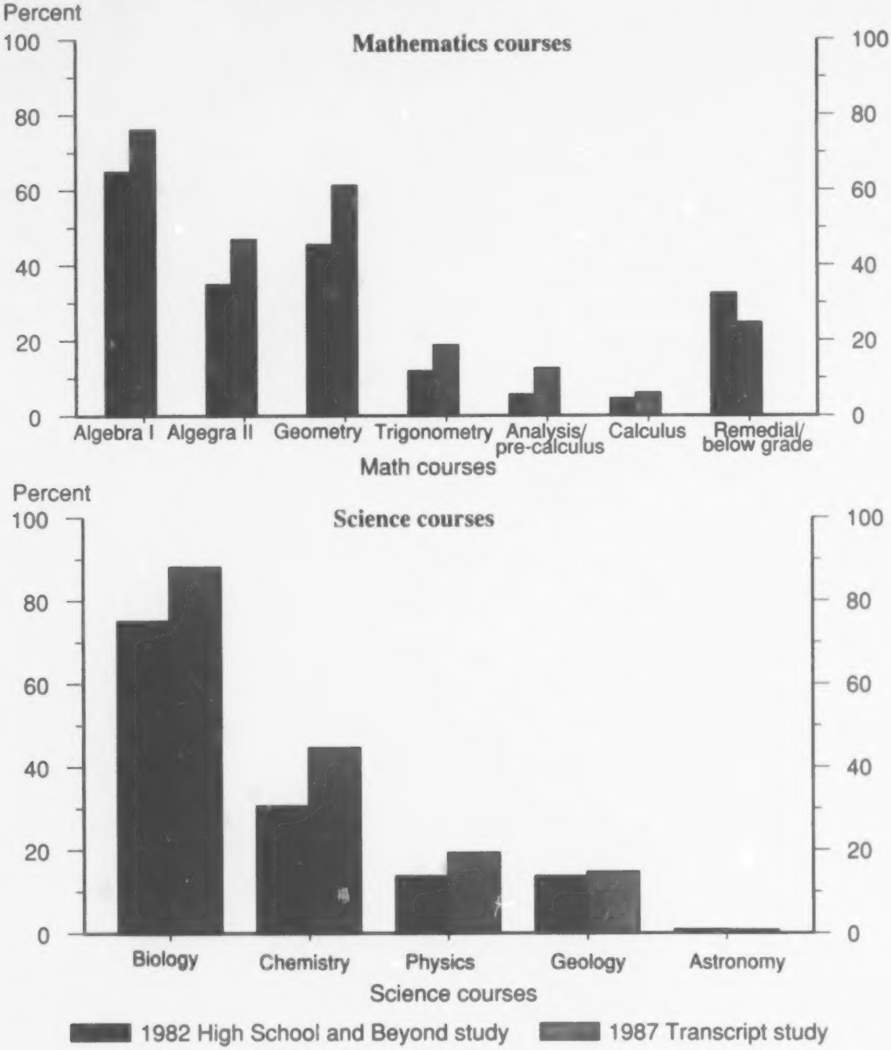
Math and science courses (credits)	1982 High School and Beyond study	1987 Transcript study	Change from 1982 to 1987[1]
Mathematics			
Any remedial or below-grade math course	32.7	24.9	[2] -7.8
Algebra I	65.1	76.3	[2] 11.1
Algebra II	35.1	47.1	[2] 12.0
Geometry	45.7	61.5	[2] 15.8
Trigonometry	12.0	19.0	[2] 7.0
Analysis or pre-calculus	5.8	12.8	[2] 7.0
Calculus	4.7	6.2	[2] 1.5
Science			
Biology	75.3	88.3	[2] 13.1
Chemistry	30.8	44.8	[2] 13.9
Physics	13.9	19.5	[2] 5.6
Geology	13.9	14.9	1.0
Astronomy	1.1	1.0	-0.1

[1] Based on unrounded numbers.

[2] Difference between 1987 and 1982 graduates is statistically significant at the $p < .05$ level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript Study, High School and Beyond, base year study.

Chart 1:14 **Percent of high school graduates taking selected high school math and science courses: 1982 and 1987**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript Study, High School and Beyond, base year study.

D. Student Participation in Various Curricula

Indicator 1:15 Student use of computers

In an increasingly technological society, computers have become a more important tool. Exposure to the use of this tool in school helps young people gain the computer literacy they will need to function effectively in U.S. society. Some students use computers to complete school assignments.

- **In 1989, 46 percent of students used computers at school, a substantial increase from the 29 percent who did so 5 years earlier.**
- **Elementary students from families in the top (4th) quartile of family income are much more likely to use computers at school than those from families in the bottom (1st) quartile. This pattern is less true at the high school level and disappears among college students.**
- **In 1989, 28 percent of students lived in households with a computer. Seventy-three percent of these students used the computer but only 35 percent use it for school assignments. High school and college students are much more likely than elementary students to use the computer at home for school assignments.**

Percent of students who use computers in school, by family income and grade level: October 1984 and 1989

	1984					1989				
		Family income quartile					Family income quartile			
Grade level	Total	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th
Total	28.5	21.1	24.3	29.9	34.4	45.5	39.6	43.9	47.4	49.9
Kindergarten	6.7	1.9	4.8	8.1	11.8	20.3	13.2	18.4	24.7	25.8
Elementary (1-8)	32.4	20.6	26.6	35.5	42.9	54.1	43.1	52.3	58.9	62.2
High school (9-12)	28.1	20.8	26.0	28.4	32.3	43.0	40.5	41.3	42.9	46.2
College	31.7	33.8	28.3	31.0	32.9	44.4	45.9	41.0	42.8	46.7

NOTE: The demarcations between family income quartiles were calculated on the basis of all persons in the survey.

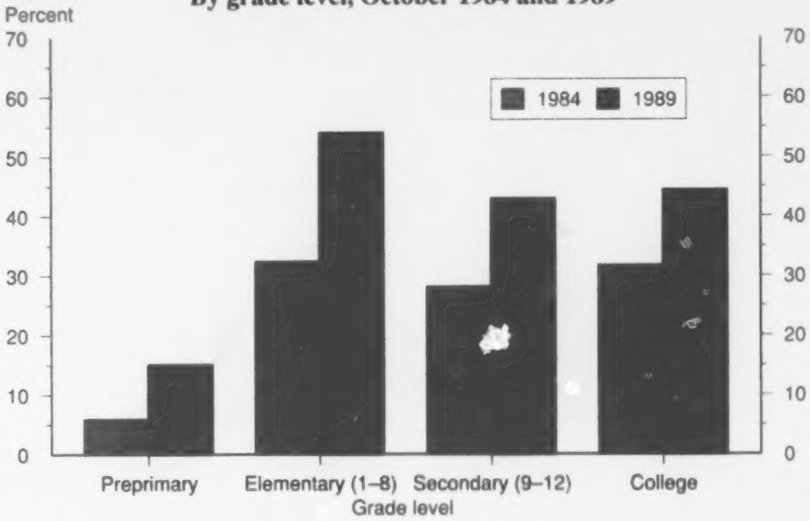
Percent of students who have a computer at home and, of those, percent who use the home computer and who use it for school assignments, by grade level: October 1984 and 1989

	Percent of students with a computer at home		Percent of students with computers at home who:			
			Use it		Use it for school assignments	
Grade level	1984	1989	1984	1989	1984	1989
Total	16.1	27.5	72.9	72.8	29.3	34.7
Preprimary	13.7	20.5	55.7	52.1	6.8	3.0
Elementary (1-8)	16.0	24.5	78.9	76.7	25.0	27.3
High school (9-12)	17.2	29.8	77.8	74.9	39.6	44.3
College	16.4	35.5	62.0	71.6	35.1	47.3

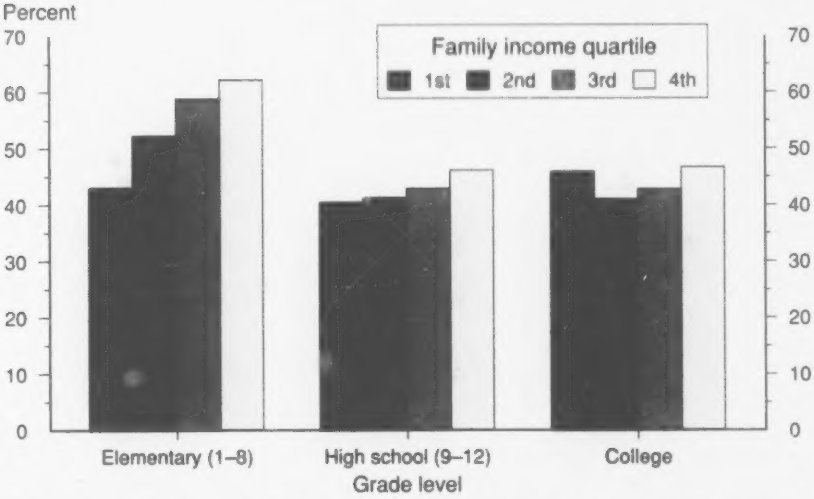
SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey.

Chart 1:15 Percent of students who use computers at school

By grade level, October 1984 and 1989



By grade attending and family income, October 1989



SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey.

II. Context

E. Size and Growth of the Schools

Preprimary education has grown rapidly over the past two decades. At the prekindergarten (pre-K) level, the large majority of 3- to 6-year-olds attend private institutions. The percentage attending full-day has remained about 30 percent since 1969. Kindergarten enrollment presents a contrasting picture. Children overwhelmingly attend public kindergartens. Full-day attendance at this level has almost quadrupled during the same time period, rising from about 11 percent in 1969 to almost 40 percent in 1989 (*Indicator 1:16*).

At the kindergarten–8 (K–8) and 9–12 levels, enrollment rose quite rapidly during the 1950s and 1960s. But in the 1970s and early and mid-1980s, enrollment dropped off sharply. From 1970 to 1984, enrollment declined in the public schools at the K–8 level, but the loss was slightly greater at the secondary level, began later, and continued until the present. In private schools, enrollment also declined at the 9-12 level, but enrollment increased at the K–8 level by about 6 percent. During the 1990s, enrollment is projected to increase at all levels and in both sectors of eduction. The largest gain should occur at the 9–12 level, where increases of 20 percent are projected for both public and private schools (*Indicator 1:17*).

E. Size and Growth of the Schools

Indicator 1:16 Selected characteristics of preprimary enrollment

Because enrollment at the preprimary level is usually optional, different enrollment patterns emerge from those at the elementary-secondary level. Additionally, students in preprimary education can enroll either on a full- or part-day basis. These various enrollment distributions can suggest the growth or decline of the different sectors of preprimary education.

- **In 1989, kindergarten enrolled about 26 percent more children than pre-K.**
- **Twice as many students attend private pre-kindergarten (pre-K) as public pre-K. At the kindergarten level, nearly six times as many students attend public schools.**
- **The percentage of children in kindergarten who attend full-day has nearly quadrupled since 1969. The percentage of children in pre-K who attend full-day has remained fairly stable since 1969.**

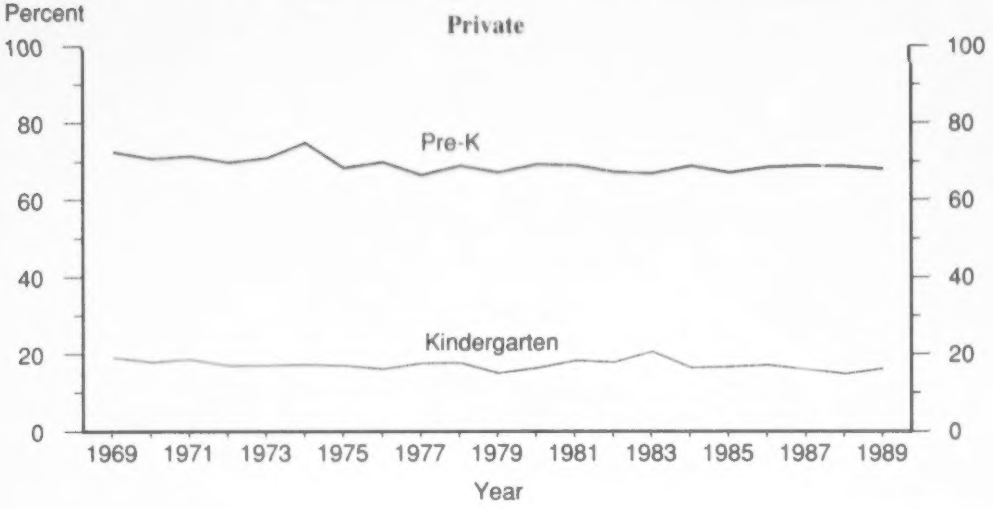
Number and selected characteristics of preprimary enrollment for 3- to 34-year-olds, by level: 1969–1989

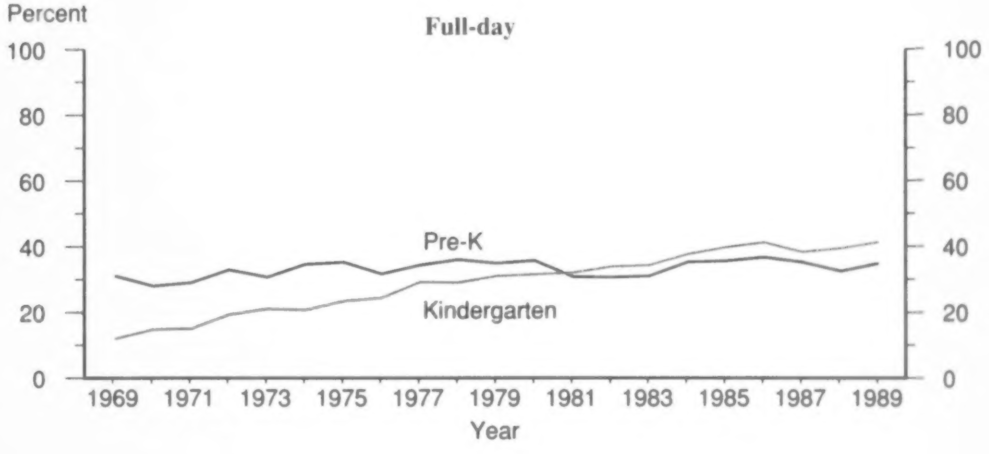
	Pre-K			Kindergarten		
Year	Number (in thousands)	Percent private	Percent full day	Number (in thousands)	Percent private	Percent full day
1969	860	71.5	29.8	3,276	18.1	10.6
1970	1,096	69.6	26.7	3,183	16.8	13.4
1971	1,066	70.3	27.7	3,263	17.6	13.6
1972	1,283	68.7	31.6	3,135	15.9	17.9
1973	1,324	69.8	29.3	3,074	16.0	19.7
1974	1,607	73.7	33.2	3,252	16.2	19.4
1975	1,748	67.2	33.9	3,393	16.0	22.0
1976	1,526	68.8	30.3	3,490	15.1	22.9
1977	1,618	65.3	32.9	3,191	16.5	27.7
1978	1,824	67.8	34.6	2,989	16.6	27.5
1979	1,869	66.0	33.5	3,025	14.0	29.7
1980	1,987	68.1	34.3	3,176	15.3	30.1
1981	2,058	67.8	29.4	3,161	17.2	30.5
1982	2,153	66.1	29.1	3,299	16.8	32.4
1983	2,350	65.6	29.5	3,361	19.5	32.8
1984	2,354	67.7	33.9	3,484	15.2	36.2
1985	2,491	65.7	34.1	3,815	15.6	38.3
1986	2,554	67.3	35.2	3,961	16.0	39.7
1987	2,575	67.4	33.7	4,009	14.8	36.9
1988	2,639	67.1	31.0	3,930	13.7	38.0
1989	2,847	66.8	33.4	3,831	15.0	39.9

NOTE: Pre-K and kindergarten enrollment does not include those below 3 years of age.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Educational Attainment in the United States...," various years; March, Current Population Survey.

Chart 1:16 Percent of 3- to 34-year-olds enrolled in private and full-day preprimary education, by level: 1969–1989





SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Educational Attainment in the United States...," various years; March, Current Population Survey.

E. Size and Growth of the Schools

Indicator 1:17 Distribution of elementary and secondary school enrollments

In the United States, the tradition of public education has been complemented by a history of private school alternatives. In this indicator, enrollment figures from both types of schools are presented by level. Additionally, enrollment patterns are presented over time, and projections are made to the year 2001. These figures are essential for educators who need data to analyze enrollment patterns and plan for future enrollments.

- **From 1970 to 1984, total public school enrollment fell about 15 percent. From 1984 to 1989, total public school enrollment rose about 4 percent.**
- **Total private school enrollment rose by over 6 percent from 1970 to 1984. From 1984 to 1989, total public school enrollment fell by about 6 percent.**
- **Total public school enrollment is projected to rise from 41 million to 44 million from 1990 to 2001, an increase of almost 8 percent. During the same time period, total private school enrollment is expected to rise from 5.4 million to almost 5.8 million, an increase of 7 percent.**
- **From 1990 to 2001, enrollment at the secondary level for both the public and private schools is projected to increase at six times the K–8 rate of growth.**

Elementary and secondary school enrollment, by control of school and level, with projections

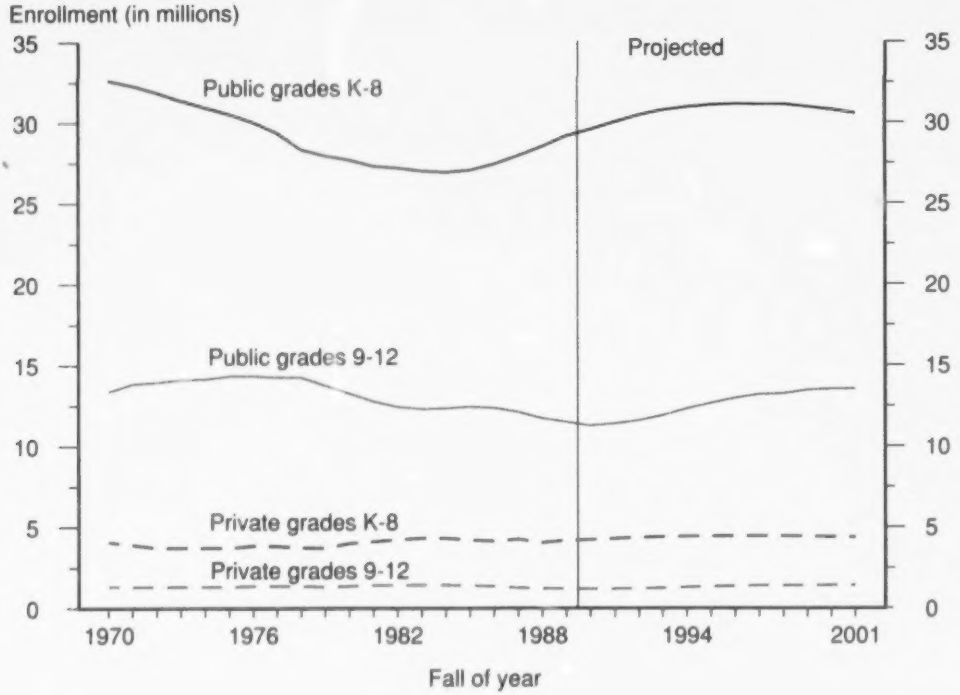
Fall of Year/ period	Public schools			Private schools		
	Grades K–12[1]	Grades K–8[1]	Grades 9–12	Grades K–12[1]	Grades K–8[1]	Grades 9–12
			(In thousands)			
1970	45,909	32,577	13,332	5,363	4,052	1,311
1984	39,208	26,901	12,308	[2] 5,700	4,300	1,400
1989[2]	40,608	29,147	11,461	5,355	4,162	1,193
	Projected			Projected		
1990	40,801	29,546	11,255	5,391	4,219	1,172
2001	44,022	30,528	13,494	5,764	4,359	1,405
	Percentage change			Percentage change		
1970–84[2]	-14.6	-17.4	-7.7	6.3	6.1	6.8
1984–89[2]	3.6	8.3	-6.9	-6.1	-3.2	-14.8
	Projected percentage change			Projected percentage change		
1990–2001	7.9	3.3	19.9	6.9	3.3	19.9

[1] Includes most kindergarten and some nursery school.

[2] Estimated for private schools. Estimated for all schools, 1989.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2001*, 1990; Common Core of Data, various years.

Chart 1:17 **Distribution of elementary and secondary school enrollments, by level and control: 1970–2001**



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2001*, 1990; Common Core of Data, various years.

F. Student Characteristics

Our Nation's students are changing. Differences in the school population can create situations in which new and difficult demands might be placed on educational institutions. One example of a major change is the percentage of minority students now attending public school. Minority student enrollment in the public schools has been rising substantially in recent years. For example, between 1976 and 1986, Hispanic enrollment increased almost 45 percent, and Asian/Pacific Islander enrollment jumped 116 percent. During the same time, white enrollment decreased about 13 percent. Whites composed about 70 percent of public school enrollment in 1986, blacks made up 16 percent, Hispanics almost 10 percent, and Asians about 3 percent of public school enrollment. Total minority enrollment in 1986 was almost 30 percent (*Indicator 1: 18*).

Poverty is one factor which can place students at risk of academic failure. The percentage of children under 18 from families below the poverty level has declined over the last three decades. In 1960, slightly more than one in four children under 18 were from a family living below the poverty level; by 1988 that figure was down to about one in five, although poverty rates through the 1970s were even lower. Poverty rates for black children fell from almost 66 percent in 1960 to about 44 percent in 1988. Nevertheless, in 1988, black children were more than three times as likely as white children to live in poverty (approximately 44 and 14 percent, respectively). The Hispanic rate was approximately 38 percent in 1988, or about 2.6 times the white rate. Thus, although the overall poverty rate for children was lower in 1988, and had fallen more than 20 percentage points between 1960 and 1988 for black youth, it remained high for both black and Hispanic children. Additionally, in 1988, children from female-headed households (a rapidly increasing segment of society) were almost three times as likely as all other children to live in poverty, and now account for more than half of all poor children (*Indicator 1:19*).

Many of today's high school students work while in school. However, some research shows that an excessive amount of time spent on a job (i.e., over 15 hours per week) can hinder academic achievement and be counterproductive for the adolescent in terms of educational, psychological, and social growth. Other research suggests that working while in school has little effect on learning.[1] In 1990, about one in three high school students held a job. Although this share has varied over the last two decades, there is no discernible long-term trend for either males or females. Of that number employed, approximately 10 percent worked 15 hours or more per week. Black students were less than half as likely as whites to work while in school (*Indicator 1:20*).

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[1] For a variety of perspectives and results see Meyer, Robert H. and David A. Wise, "High School Preparation and Early Labor Market Experience," in Freeman, Richard A. and David A. Wise (eds.), *The Youth Labor Market Problem: Its Nature, Causes, and Consequences*, Chicago, IL: The University of Chicago Press for the National Bureau of Economic Research, 1982; D'Amico, Ronald, "Does Employment During High School Impair Academic Progress?", *Sociology of Education, 57(3)*, July 1984; Greenberger, Ellen and Laurence Steinberg, *When Teenagers Work: The Psychological and Social Cost of Adolescent Employment*. (New York: Basic Books, 1986); and Barton, Paul E. *Earning and Learning: The Academic Achievement of High-School Juniors With Jobs*, Educational Testing Service, March 1989.

A number of attributes, such as having a single parent, parents without a high school diploma, limited English proficiency, and a sibling who dropped out of high school, are considered to place students at risk of school failure.[2] While a single risk factor does not necessarily signal trouble, combinations of such attributes are particular causes for concern.[3] On average, minority students (except Asians) have a higher percentage of risk factors than whites. For example, in 1988, black, Hispanic, and American Indian students were at least twice as likely as white students to have more than two risk factors. Almost half of all black eighth graders in 1988 came from single-parent families, and almost half came from a family which had an income of less than $15,000. One-third of the parents of Hispanic eighth graders had no high school diploma, and more than one-third came from families in which the income was less than $15,000 (*Indicator 1:21*).

To summarize, the data presented in this section suggest that, overall a somewhat smaller percentage of children under 18 are from families below the poverty level than in the 1960s, but rates have increased since the 1970s. The poverty rate for minority children, however, remains higher than the rate for white children. Additionally, minority students are more likely to be at risk of school failure. Finally, about one-third of high school students hold jobs while they are in high school.

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[2] U.S. Department of Education, National Center for Education Statistics, *A Profile of the American Eighth Grader*, 1990.

[3] Pallas, A., Natriello, G., and McDill, E. 1989. "The Changing Nature of the Disadvantaged Population: Current Dimensions and Future Trends". *Educational Researcher*, 18,16-22.

F. Student Characteristics

Indicator 1:18 Racial and ethnic distribution of enrollment

Between 1976 and 1986, the ethnic and racial composition of the public schools underwent considerable change caused by a rapidly increasing minority population. The greatest expansion occurred among the Hispanic and Asian populations. These increases portend a greater degree of heterogeneity of language and culture in the schools. Since many minorities come from impoverished families as well, the changing enrollment patterns present the public schools and policymakers with challenges which must be met with bold and effective programs.

- **Minority enrollment as a proportion of total enrollment in elementary and secondary education rose from 24 percent in 1976 to almost 30 percent in 1986.**
- **As a proportion of total enrollment, Hispanics increased from 6.4 percent in 1976 to almost 10 percent in 1986. The number of Hispanic students increased from almost 3 million in 1976 to more than 4 million in 1986, an increase of about 45 percent.**
- **The proportion of white enrollment declined between 1976 and 1986, from 76 percent to 70 percent.**
- **During the same time period enrollment of Asian/Pacific Islander students increased from 535,000 to 1,158,000, an increase of 116 percent.**

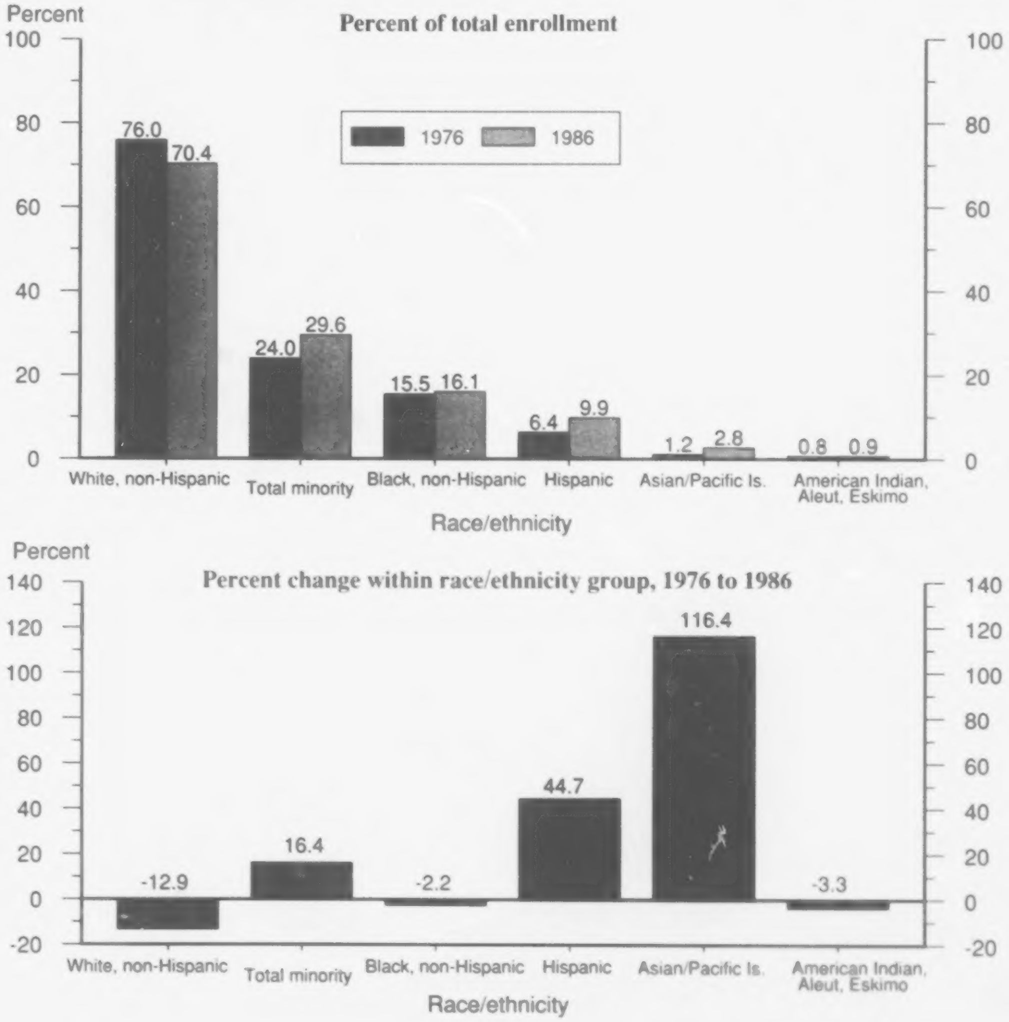
Enrollment in public elementary and secondary education, by race/ethnicity: 1976, 1984, 1986

Race/ethnicity	1976	1984	1986	Percent change 1976-1986
		Number in thousands		
Total	43,714	39,452	41,156	-5.9
White, non-Hispanic	33,229	28,108	28,957	-12.9
Total minority	10,485	11,346	12,200	16.4
Black, non-Hispanic	6,774	6,389	6,622	-2.2
Hispanic	2,807	3,599	4,064	44.7
Asian/Pacific Islander	535	994	1,158	116.4
American Indian/Alaskan Native	368	364	356	-3.3
		Percent of public school enrollment		
Total	100.0	100.0	100.0	—
White, non-Hispanic	76.0	71.2	70.4	—
Total Minority	24.0	28.8	29.6	—
Black, non-Hispanic	15.5	16.2	16.1	—
Hispanic	6.4	9.1	9.9	—
Asian/Pacific Islander	1.2	2.5	2.8	—
American Indian/Alaskan Native	0.8	0.9	0.9	—

— Not available.

SOURCE: U.S. Department of Education, Office for Civil Rights, *Directory of Elementary and Secondary School Districts and Schools in Selected Districts*: 1976–1977; and 1984 and 1986 Elementary and Secondary School Civil Rights Survey.

Chart 1:18 **Enrollment in public elementary and secondary education, by race/ethnicity: 1976 and 1986**



SOURCE: U.S. Department of Education, Office for Civil Rights, *Directory of Elementary and Secondary School Districts and Schools in Selected Districts*: 1976–1977; and 1984 and 1986 Elementary and Secondary School Civil Rights Survey.

Indicator 1:19 Children in poverty

The effects of poverty on children's education are well documented. Low achievement, high dropout rates, and poor educational performance are highly correlated with poverty. Children from poor homes may lack adequate preparation for elementary school learning, and they may need a greater number of school services than other children.

- **In 1988, the percentage of black children living below the poverty level was three times that of white children; Hispanic children were 2.6 times as likely as white children to live in poverty.**
- **Because of rapid increases in the overall share of children in female-headed families and their higher-than-average poverty rates, the percentage of all children in poverty who lived with a female householder more than doubled, from about 24 percent in 1960 to almost 59 percent in 1988.**
- **The percentage of all children below the poverty level dropped from almost 27 percent in 1960 to a low of 14.9 percent in 1970, but has since risen and was 19.2 percent in 1988. On average, from 1980 to 1988, 20 percent of all children under 18 were living in poverty.**

Children under 18 living in poverty: 1960–1988

	Percent of children in poverty				Percent of children in poverty living with female householder[1]			
Year	Total	White	Black	Hispanic[2]	Total	White	Black	Hispanic[2]
1960[3]	26.5	20.0	65.5	—	23.7	21.0	29.4	—
1965[4]	20.7	14.4	47.4	—	31.7	27.0	49.7	—
1970	14.9	10.5	41.5	—	45.8	36.6	60.8	—
1975	16.8	12.5	41.4	34.5	51.4	41.7	70.1	42.9
1980	17.9	13.4	42.1	33.0	52.8	41.3	75.4	47.1
1981	19.5	14.7	44.2	35.4	52.2	42.0	74.3	48.5
1982	21.3	16.5	47.3	38.9	—	—	—	—
1983	21.8	17.0	46.2	37.7	50.0	39.3	74.5	42.5
1984	21.0	16.1	46.2	38.7	52.4	41.8	74.9	47.2
1985	20.1	15.6	43.1	39.6	53.8	43.0	78.4	49.6
1986	19.8	15.3	42.6	37.1	56.6	45.7	80.5	49.5
1987	20.0	15.0	45.1	39.3	56.9	46.0	79.0	47.2
1988[5]	19.2	14.1	43.5	37.6	58.7	49.7	78.4	48.7

— Not available.

[1] No husband present. The householder is the person in whose name the housing unit is owned or rented.

[2] Hispanics may be of any race. Data for Hispanics begins in 1973.

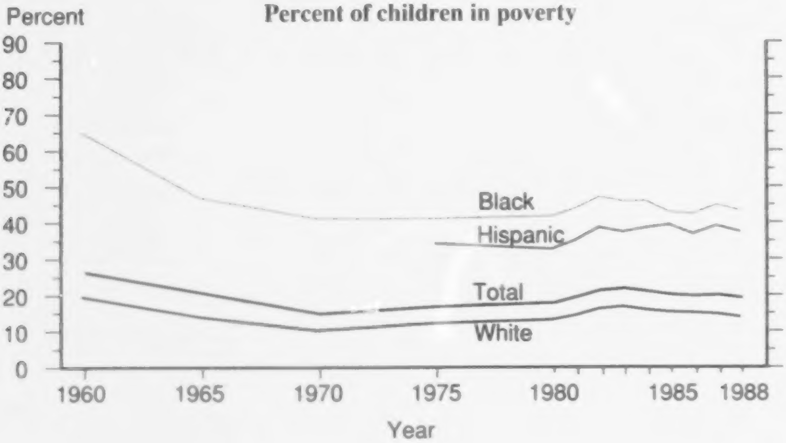
[3] Data presented are for year 1959 for blacks, and 1960 for whites and total.

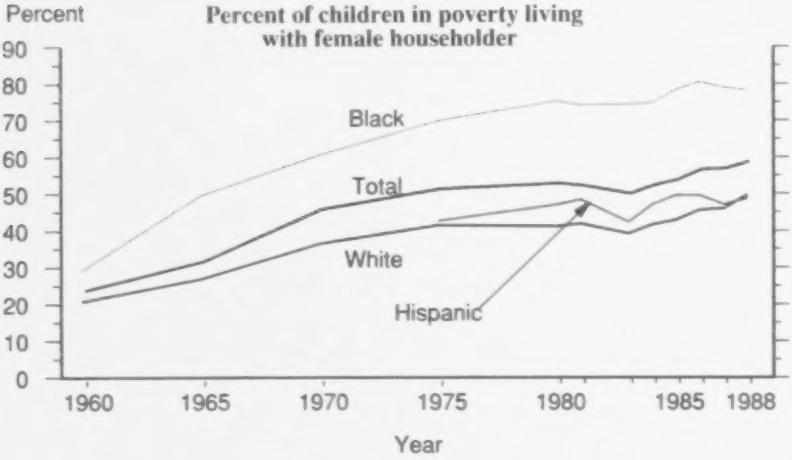
[4] Data presented are for year 1967 for blacks, and 1965 for whites and total.

[5] Estimated.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-60, "Poverty in the United States: . . . ," various years, March, Current Population Reports.

Chart 1:19 Children under 18 in poverty: Selected years 1960–1988





NOTE: Plotted points are 1960, 1965, 1970, 1975 and 1980–1988 for all children in poverty, and 1960, 1965, 1970, 1975, 1980–1981, and 1983–1988 for all children in poverty with female householder.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-60, "Poverty in the United States: . . .," various years, March, Current Population Reports.

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Indicator 1:20 Working while in high school

Working during the school year leaves less time for students to concentrate on their studies or to participate in extracurricular activities. On the other hand, students may learn from work experience things that are not taught in the classroom. Those who work more while in school may earn more after leaving school. A moderate amount of work—less than 15 hours per week—may be associated with higher completion rates and better grades. A substantial amount of work—more than 20 hours per week—may be detrimental to grades and attendance.

- **Almost one in three high school students was working in October 1990.**
- **Black high school students were less than half as likely as their white counterparts to work while still in school.**
- **Over the 1970–1990 time period, the percent of high school students who were working varied with general economic conditions, falling during recessions and rising during expansions. After rising since 1983, it fell in 1990 as the economic slowdown began.**

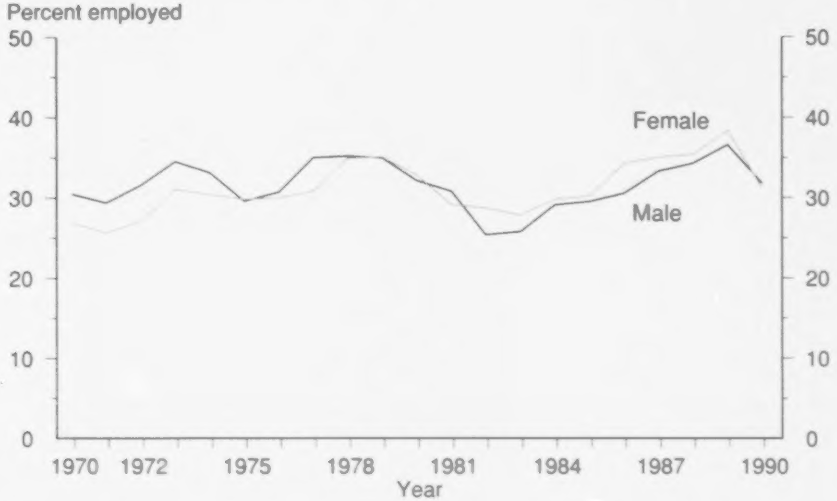
Percent of high school students 16–24 years old who were employed, by sex and race: 1970–1990

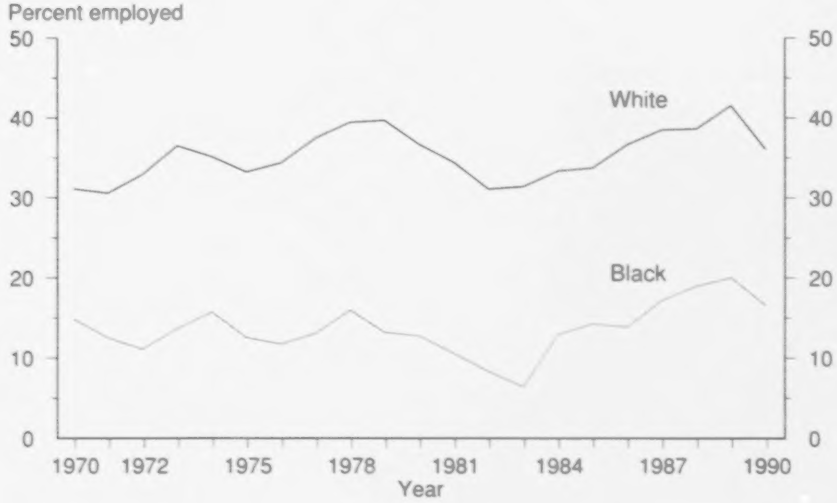
	Male employed		Female employed		White employed		Black employed	
Year	Total	Full time*	Total	Full time*	Total	Full time*	Total	Full time*
1970	30.9	3.7	27.3	1.7	31.6	2.8	15.3	2.5
1971	29.8	2.9	26.1	1.3	31.0	2.1	12.9	2.4
1972	32.0	4.1	27.5	1.7	33.3	3.1	11.5	2.6
1973	35.0	5.0	31.5	1.8	36.9	3.7	14.1	2.1
1974	33.6	4.6	30.9	2.0	35.6	3.6	16.1	2.1
1975	30.0	3.5	30.2	2.1	33.6	3.2	12.9	1.3
1976	31.1	3.5	30.4	1.6	34.8	2.7	12.1	2.4
1977	35.4	4.1	31.2	2.1	37.8	3.5	13.4	1.8
1978	35.6	4.0	35.4	2.3	39.8	3.5	16.3	1.8
1979	35.4	3.6	35.5	2.3	40.0	3.3	13.5	1.6
1980	32.5	2.9	33.2	1.7	37.0	2.4	13.1	2.0
1981	31.2	2.5	29.5	1.5	34.8	2.1	10.9	1.5
1982	25.7	1.7	29.0	1.3	31.4	1.9	8.6	0.1
1983	26.1	2.4	28.2	1.6	31.7	2.4	6.7	0.6
1984	29.4	2.3	30.1	0.9	33.7	1.8	13.3	0.8
1985	29.8	2.1	30.6	1.0	34.0	1.8	14.5	0.8
1986	30.9	2.4	34.6	1.3	36.9	2.1	14.2	0.9
1987	33.6	2.5	35.4	1.6	38.8	2.2	17.5	1.8
1988	34.6	2.9	35.7	1.5	38.9	2.3	19.3	1.5
1989	36.9	3.7	38.7	1.6	41.8	2.8	20.3	1.8
1990	32.7	3.6	31.5	2.1	36.3	3.1	16.8	1.3

* 35 or more hours per week.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940—1987*, *Employment and Earnings*, and unpublished tabulations.

Chart 1:20 Percent of high school students 16–24 years old who were employed: 1970–1990





SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, *Employment and Earnings*, and unpublished tabulations.

F. Student Characteristics

Indicator 1:21 Eighth grade students with risk factors

Research has shown that certain background factors or experiences in formal schooling, family, or community are correlated with poor performance in school. Having a single risk factor does not necessarily indicate that a child is destined for school failure. However, certain combinations of risk factors have been shown to be particularly detrimental to success in school.

- **In 1988, more than one-fifth of all eighth graders came from single-parent families; about the same share came from families with incomes of less than $15,000 per year.**
- **Almost half of all black eighth graders in 1988 came from single-parent families, and almost half came from a family that had an income of less than $15,000 per year.**
- **A third of the parents of Hispanic eighth graders in 1988 had no high school diploma, and more than one-third of these students came from families earning less than $15,000 per year.**
- **In 1988, black, Hispanic, and American Indian eighth graders were about half as likely as white and Asian eighth graders to have no risk factors.**
- **Forty-four percent of black, 39 percent of Hispanic, and 36 percent of American Indian eighth graders had two or more risk factors. In contrast, only about 14 percent of white eighth graders had two or more risk factors (table 1:21-1).**

Percentage of eighth graders with various risk factors by race/ethnicity: 1988

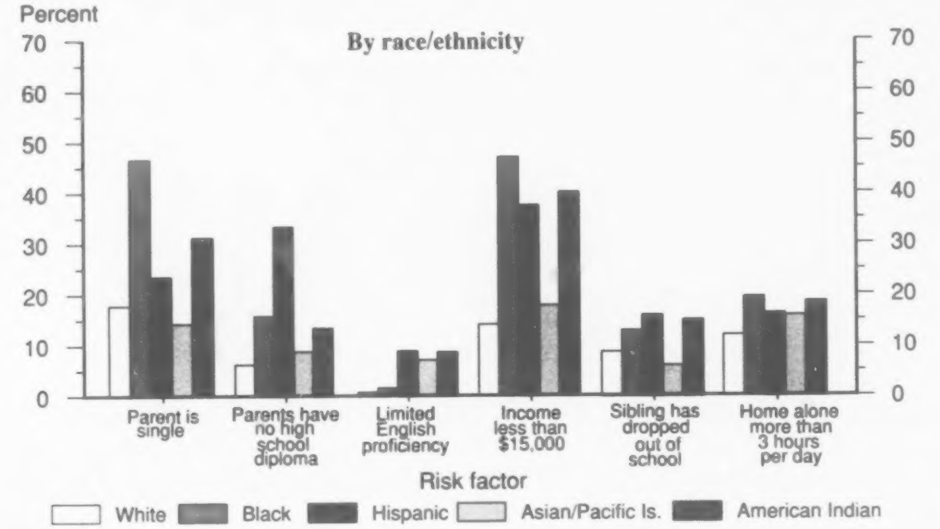
	Risk factors						Percent with factors[1]			
Race/ ethnicity	Parent is single	Parents have no high school diploma	Limited English pro- ficiency	Income less than $15,000	Sibling has dropped out of school	Home alone more than 3 hours per day	Zero	One	Two	Three or more
Total	22.3	10.5	2.3	21.3	10.0	13.6	53.4	25.6	13.7	7.3
White	17.7	6.2	0.8	14.1	8.8	12.0	61.5	24.2	10.1	4.2
Black	46.5	15.8	1.6	47.0	13.0	19.5	27.9	28.5	26.2	17.4
Hispanic[2]	23.4	33.4	8.8	37.5	16.0	16.3	30.5	30.8	22.5	16.2
Asian/Pacific Islander	14.2	8.8	7.1	17.8	6.1	15.9	57.9	26.0	10.1	6.2
American Indian	31.1	13.4	8.6	40.1	15.1	18.6	31.4	32.3	22.2	14.1

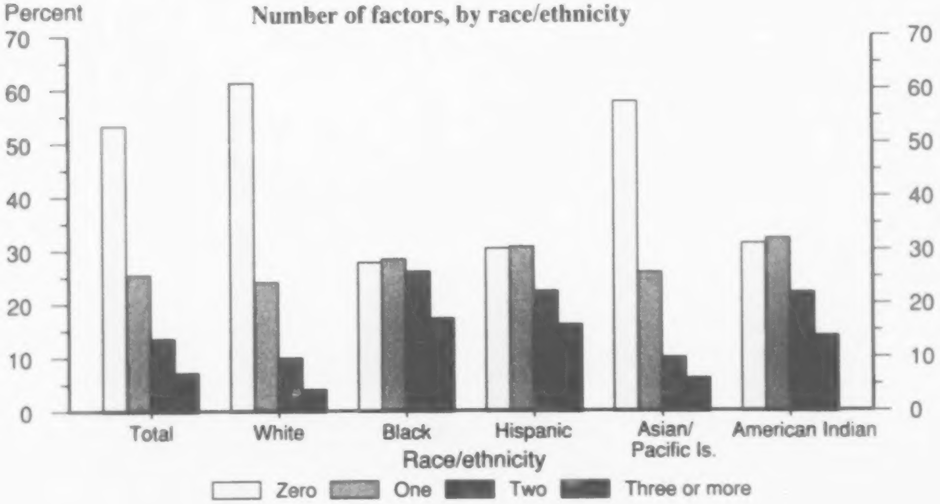
[1] Individuals who did not respond to any one of the six risk factors were excluded. Complete data were available for 92 percent of the sample.

[2] Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Educational Longitudinal Study of 1988, base year survey; *A Profile of the American Eighth Grader*, 1990.

Chart 1:21 Eighth graders with risk factors, by race/ethnicity and number: 1988





SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, base year survey; *A Profile of the American Eighth Grader.*

G. School Climate

Recent analyses have suggested that school climate is an important variable affecting learning outcomes and achievement.[1] If these claims are accurate, it becomes essential to know the type and extent of problems confronting schools that could interfere with learning.

In 1988, in two separate surveys, eighth grade teachers and eighth grade students were questioned about school problems. A variety of areas was examined: drug and alcohol usage, student possession of weapons, vandalism, and abuse of teachers, among others. Also, since 1970, the U.S. public has been questioned about a number of problems that confront schools in another survey. Often, public perceptions differ sharply from those of teachers, and teacher perceptions differ clearly from those of students. The results of these surveys are discussed below[2].

More than 14 percent of all eighth grade students stated that alcohol and drug usage was a serious problem at the schools they attended. An average of about 7 percent of the teachers pointed to drug and alcohol usage as a serious issue in the schools where they taught. At least 16 percent of the students in public and independent schools said that drug and alcohol use were significant problems in their schools. Fewer Catholic and other private school students indicated that drug usage was a serious issue in their schools. While drug and alcohol usage was cited by some teachers and students as serious, generally it was not considered to be the most serious problem facing the schools.[3] The public, however, has increasingly indicated its perception that drug usage is a cause of great concern. In 1972, about 4 percent of the public said that drugs were a "big problem" in the public schools; by 1990, this figure had risen to 38 percent, the largest percentage targeted on any problem since 1970 (*Indicators 1:22* and *1:24*).

Eighth grade teachers in 1988 indicated that verbal abuse of teachers was the second most serious problem in their schools, with about 1 in 10 eighth grade teachers mentioning it. This problem was much worse in schools with a high level of poverty. While not asked about verbal abuse specifically, only 3 percent of the public in 1988 indicated that a "lack of respect for teachers/other students" was a serious problem (*Indicator 1:23* and *1:24*).

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[1] See, for example, V.E. Lee and A.S. Bryk, "A Multilevel Model of the Social Distribution of High School Achievement," *Sociology of Education*, Vol. 62, 172-192, (July, 1989); F.M. Newmann, R.A. Rutter, M.S. Smith, "Organizational Factors that Affect School Sense of Efficacy, Community, and Expectations," *Sociology of Education*, Vol. 62, 221-238, (October, 1989).

[2] Teacher responses were obtained from the Schools and Staffing Survey, student responses were obtained from the National Longitudinal Education Study of 1988, and the public's responses were taken from the Gallup/*Phi Delta Kappan* annual survey of the public's attitude toward the public schools.

[3] In fact, drug use among high school seniors has declined in recent years. See *The Condition of Education*, 1990 edition, *Indicator 1:21*.

Among eighth grade students in 1988, the most frequently cited serious school problem was physical conflicts among themselves. Eighth grade teachers indicated that these incidents were of concern, but mentioned them less often. Only 2 percent of the public in 1988 indicated that fighting was a serious problem, well below drug use and student discipline figures (*Indicator 1:23* and *1:24*).

The U.S. public has seen some problems as persistent over time, while the concern with others has varied greatly. For example, two of the biggest problems noted by the public since 1970 have been discipline in and adequate financing for public schools. In 1990, the public still considered these to be serious issues. But on other issues, such as integration, what was a major problem in 1971 was perceived as a minor problem in 1990 (*Indicator 1:24*).

In summary, the climate and problems of American schools can only be hinted at by the data presented in this section, but the information does suggest a few general conclusions. First, the actual extent of problems in the Nation's schools is unclear. Teachers, students, and the U.S. public reported different problems as being the most "serious". Second, the severity of problems in schools appears to be much higher in schools with high levels of poverty than in schools with low levels. Third, trend data on the public perception of school problems suggest that while some problems are thought to be persistent (e.g., discipline and adequate financing for the schools), others change considerably over time (e.g., integration and drugs).

Indicator 1:22 Student drug and alcohol use: Opinions of eighth grade students and teachers

Drug and alcohol use by school-age children has increasingly caught the public's attention. Use of drugs and alcohol can create learning, discipline, and other related problems for the classroom and the school.

- **On average, in 1988, about 15 percent of eighth grade students considered alcohol and drugs to be serious problems in the schools they attended. An average of 7 percent of eighth grade teachers said these were serious problems in schools where they taught.**
- **Higher percentages of students in independent and public schools indicated that alcohol and drug use were serious problems in their schools than did students in Catholic and other private schools.**
- **Ninety percent of all eighth graders had not been offered drugs at school in 1988.**

Percent of eighth grade students and percent of eighth grade teachers who consider student drug and alcohol usage to be serious school problems, by race/ethnicity and school type: 1988

		Race/ethnicity					School type			
Problem	Total	White	Black	Hispanic*	Asian/ Pacific Is.	American Indian	Public	Catholic	Independent	Other private
Students										
Alcohol	15.3	15.1	16.1	15.0	16.1	19.9	16.2	8.5	17.7	5.7
Drugs	14.2	13.3	16.3	16.5	16.5	20.0	15.0	8.2	14.2	6.0
Teachers										
Alcohol	7.5	7.6	7.0	4.7	0	17.3	9.3	1.1	—	—
Drugs	6.2	5.5	11.1	5.3	3.9	19.2	7.5	0.9	—	—

Percent of eighth grade students offered drugs at school during one semester, by race/ethnicity and school type: 1988

		Race/ethnicity					School type			
Frequency	Total	White	Black	Hispanic*	Asian/ Pacific Is.	American Indian	Public	Catholic	Independent	Other private
Never	90.0	90.1	92.4	85.7	95.2	83.6	89.0	97.5	95.0	97.2
Once or twice	6.9	6.9	5.8	8.9	3.5	11.3	7.6	1.6	3.2	1.8
More than twice	3.1	3.0	1.8	5.3	1.3	5.1	3.4	0.9	1.8	0.9

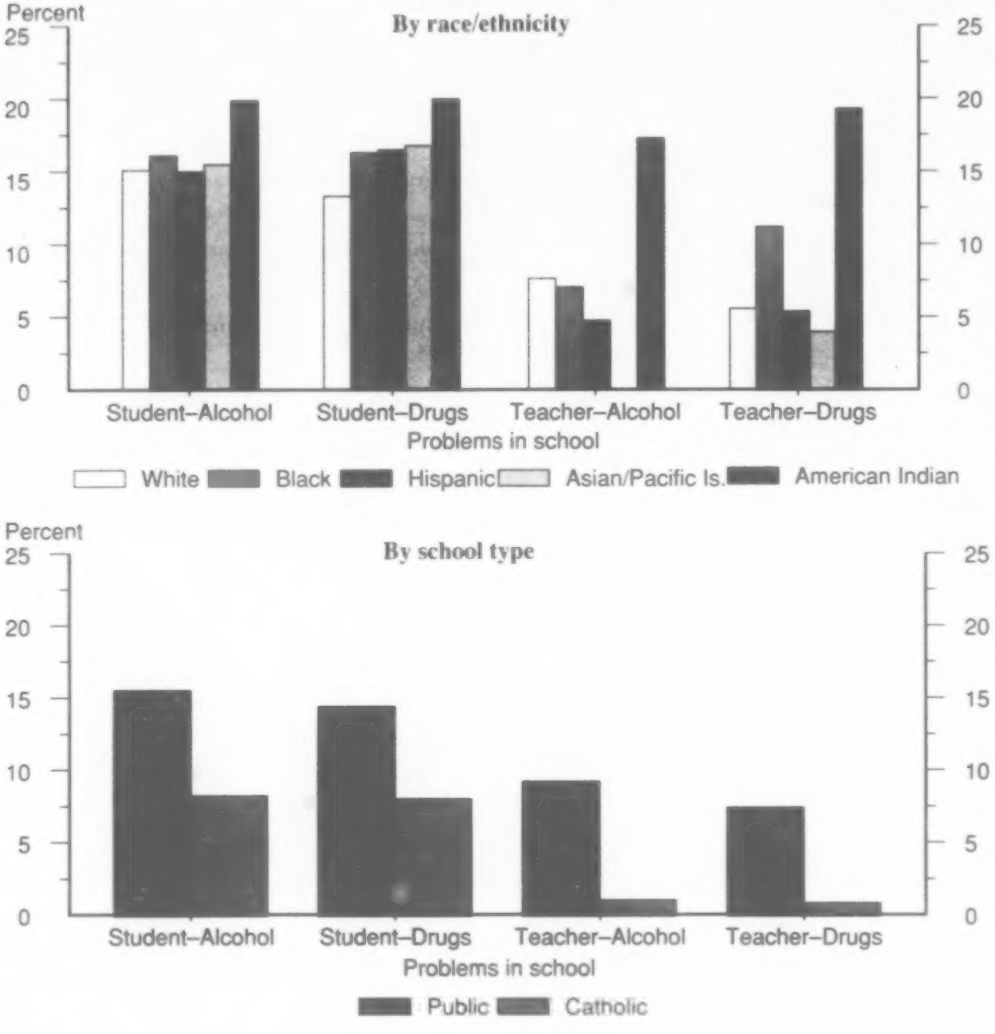
— Not available.

* Hispanics may be of any race.

NOTE: Columns in the second table may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Survey, base year survey, 1988 (student responses); Schools and Staffing Survey, base year survey, 1987–1988 (teacher responses), unpublished tabulations.

Chart 1:22 Percent of eighth grade students and teachers who consider student drug and alcohol use at school to be serious school problems: 1988



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal survey, base year survey, 1988 (student responses); Schools and Staffing Survey, base year survey, 1987–1988 (teacher responses).

Indicator 1:23 Eighth grade student and teacher perceptions of problems in schools

Student unruliness and vandalism are just two of the problems thought to plague schools. These and other adversities can often reduce school effectiveness. Yet, it is not clear which problems are the most severe. Seen from different vantage points, the same problem might produce different assessments.

- **On average, a greater percentage of eighth grade students indicated that problems in the schools they attended were serious than did eighth grade teachers in the schools where they taught.**
- **In schools with a high level of poverty, a larger percentage of students than in low poverty schools felt that the various problems in their schools were serious. Generally, a similar pattern was seen among eighth grade teachers.**
- **A significantly larger percentage of black than white eighth graders perceived the problems in their schools as serious.**

Percent of eighth grade students and percent of eighth grade teachers who consider problems to be serious, by selected personal and school characteristics: 1988

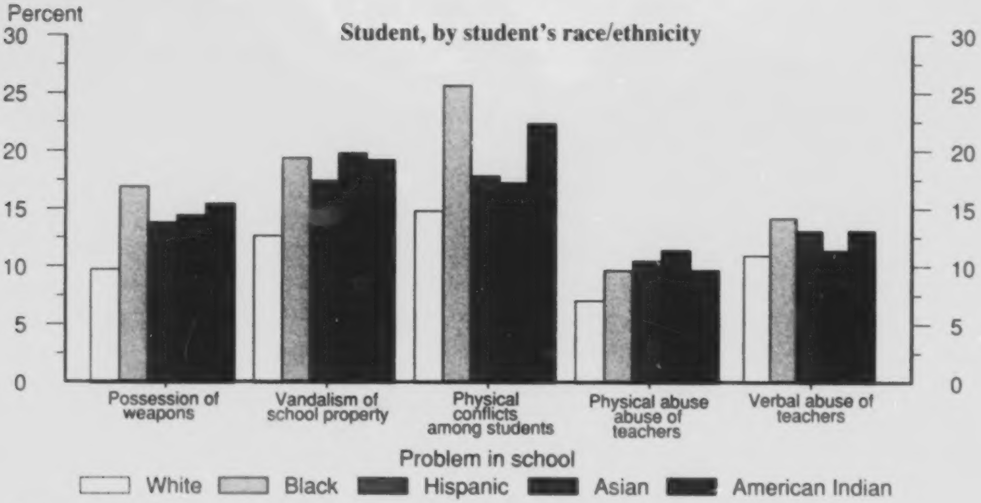
		Race/ethnicity					School poverty status[1]	
Problem	Total	White	Black	Hispanic[2]	Asian Pacific Is.	American Indian	High poverty	Low poverty
				Eighth grade *students*				
Possession of weapons	11.3	9.7	16.8	13.7	14.3	15.3	15.4	10.6
Vandalism of school property	14.5	12.8	19.6	17.6	20.0	19.4	20.0	13.6
Physical conflicts among students	16.6	14.8	25.6	17.8	17.2	22.3	22.6	15.6
Physical abuse of teachers	7.9	7.0	9.6	10.4	11.3	9.6	9.9	7.6
Verbal abuse of teachers	11.5	10.9	14.1	13.0	11.3	13.0	13.7	11.1
				Eighth grade *teachers*				
Possession of weapons	1.4	1.4	1.6	0	0	7.3	4.3	0.9
Vandalism of school property	4.9	4.6	8.5	7.3	2.5	9.5	10.0	4.3
Physical conflicts among students	7.0	6.8	12.2	1.8	0	7.3	18.9	4.4
Physical abuse of teachers	1.7	1.6	1.9	0	0	7.3	6.3	0.7
Verbal abuse of teachers	10.1	10.0	10.6	9.7	6.9	20.9	21.4	7.6

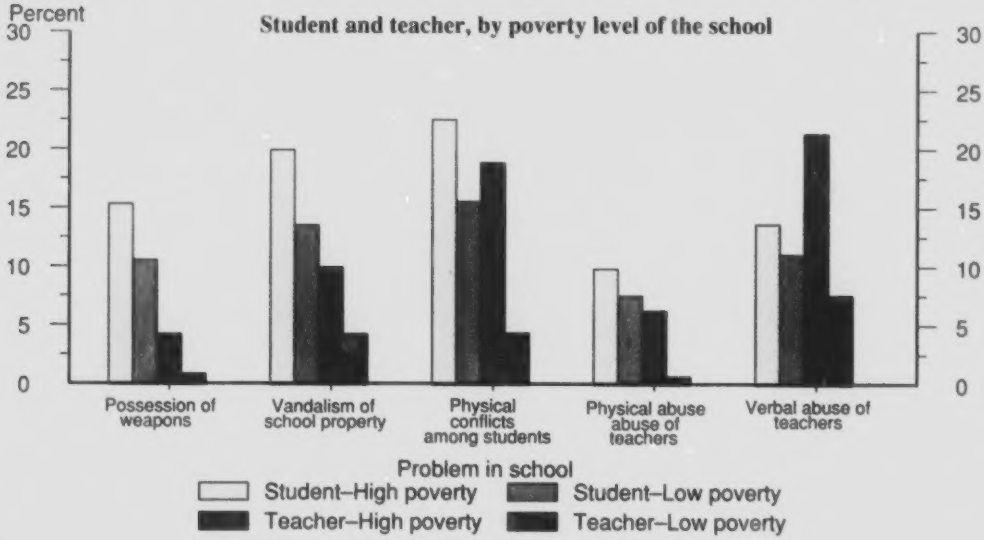
[1] High poverty schools, in this indicator, are defined as schools in which 50 percent or more of the students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

[2] Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Survey, base year survey, 1988 (student responses); Schools and Staffing Survey, base year survey, 1987–1988 (teacher responses).

Chart 1:23 Eighth grade student and teacher perceptions of problems in schools: 1988





SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Survey, base year survey, 1988 (student responses); Schools and Staffing Survey, base yearsurvey,1987–1988 (teacher responses).

Indicator 1:24 Perceptions of problems in the public schools: 1970–1990

For more than 20 years, the Gallup/*Phi Delta Kappan* survey of the public's attitude toward public schools has asked the American people what they thought were the most important problems facing the public schools in their communities. This poll has become a barometer, closely watched and debated each year by educators and policymakers.

- **Lack of discipline has consistently been perceived by the public as a major problem; it ranked as the second most frequently cited problem in 1990.**
- **In 1970, only 11 percent of the public indicated that drug use was a major problem in the schools. By 1990, 38 percent indicated it was a serious problem.**
- **From 1970 to 1975, on average, 18 percent thought that integration was a serious problem. Since 1985, an average of only 4 percent has cited it as a problem.**
- **More than 10 percent of the public have considered lack of proper financial support for the schools to be a serious problem in nearly every year.**

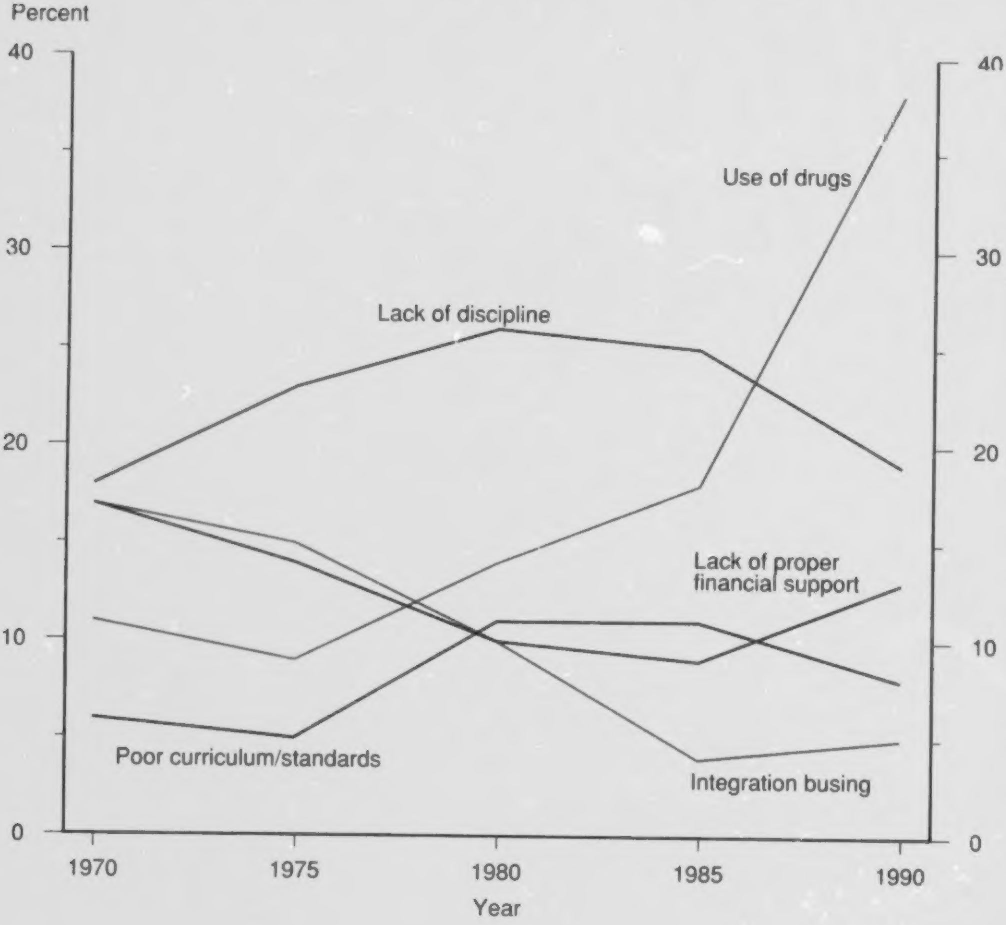
Percentage of public citing major problems in their community's public schools: 1970–1990

Year	Lack of discipline	Integration/ busing	Lack of proper financial support	Use of drugs	Poor curriculum/ poor standards	Large schools/ over-crowding	Difficulty getting good teachers
1970	18	17	17	11	6	—	—
1971	14	21	23	12	3	—	—
1972	23	18	19	4	5	10	—
1973	22	18	16	10	7	9	13
1974	23	16	13	13	3	6	11
1975	23	15	14	9	5	10	11
1976	22	15	14	11	14	5	11
1977	26	13	12	7	10	5	11
1978	25	13	13	13	12	5	9
1979	24	9	12	13	11	4	10
1980	26	10	10	14	11	7	6
1981	23	11	12	15	14	5	11
1982	27	6	22	20	11	4	10
1983	25	5	13	18	14	3	8
1984	27	6	14	18	15	4	14
1985	25	4	9	18	11	5	10
1986	24	3	11	28	8	5	6
1987	22	4	14	30	8	8	9
1988	19	4	12	32	11	6	11
1989	19	4	13	34	8	8	7
1990	19	5	13	38	8	7	7

— Not available.

SOURCE: "The Annual Gallup Poll of the Public's Attitude Toward the Public Schools," *Phi Delta Kappan*, September, 1970–1990.

Chart 1:24 Percent of public citing these as major problems facing the public schools in their community: Selected years 1970–1990



NOTE. Plotted points are 1970, 1975, 1980, 1985, and 1990.

SOURCE: "The Annual Gallup Poll of the Public's Attitude Toward the Public Schools," *Phi Delta Kappan*, September, 1970–1990.

III. Resources

H. Fiscal Characteristics

A variety of education policies are reflected in measures of education expenditures. Among these are (1) teacher salaries, (2) average class size, (3) availability of special services, and (4) the rate of participation in education by the population. These vary across states, countries, and time. Education expenditures have indeed risen in recent years, and there are a number of reasons for that. There has been persistent public debate around the issue of whether higher expenditures are associated with improved educational outcomes, and this issue remains unresolved. But there are multiple purposes of education policy, and the positive values of the American society are reflected in the goals of public policymakers.

Thus, as the education system increases educational requirements for teachers, it is likely that teacher salaries will increase and expenditures will rise. As the education system strives to keep class sizes small in the early grades, expenditures per pupil will rise. As the education system works to provide special services to handicapped and disadvantaged students, expenditures will rise. As a larger fraction of the population participates in public education and stays in until high school graduation, expenditures will rise.

Increasing demands for services have been placed on educators and public schools. These schools now instruct children from various ethnic, racial, social, cultural, and linguistic backgrounds. Additionally, since the passage of the Education of the Handicapped Act (Public Law 94–142), schools have been required to provide "free and appropriate" education to all. This entails the provision of numerous services and facilities for a variety of students (*Indicator 1:13*). In addition, during the 1990s, elementary and secondary schools are expected to experience increases in enrollment (*Indicator 1:17*) which could raise the need for revenues still higher.

The national index presented in this section is a measure of fiscal resources provided each student in relation to taxpayers' ability to pay. In 1939–40, the index was 16.5, but it increased to 28.5 by 1990. This indicates that the fiscal resources provided for each student, relative to the taxpayers' ability to pay, increased about 50 percent since 1959–60. Expenditures show similar patterns. Since 1960, total expenditures per pupil have increased from $1,947 to $4,929 in 1990 (in constant 1990 dollars), an increase of 153 percent. However, school revenues as a percent of the GNP declined from a high of 4.3 percent in 1972 (the year of the largest elementary and secondary school enrollment) to 3.6 percent since 1986. Since 1979, states have provided the largest share of revenues for education. In 1989, states provided 47.7 percent of education revenues; down from 49.5 percent in 1988. The federal government's share, which has always been modest, reached a high of 9.8 percent in both 1979 and 1980, fell sharply during the 1980s, and was 6.2 percent in 1989.

International comparisons are both valuable and problematic. They are valuable because they contrast U.S. policies to those of countries with very different systems and policies but who are nevertheless our economic competitors. They are problematic because the data collection in each country is so different that the data may not be comparable. Current public expenditures on elementary and secondary education in the United States were 3.5 percent of gross domestic product (GDP) in 1986. Japan spent 3 percent and West Germany spent 2.7 percent on education. Per pupil expenditures in the United States were $3,238 compared to $1,904 and $1,941 in Japan and West Germany, respectively. These per pupil expenditures were 19 percent of GDP per capita in the United States compared to 15 percent in Japan and West Germany. Among larger countries for which data were available, Canada stands out as making the highest investment in elementary and secondary education. Among smaller countries, Norway, Sweden, Denmark, and Switzerland make relatively high investments (*Supplemental table 1:26-1.*)

Measures of the investment the United States is making in its children's education have been used for other purposes. For example, many researchers have studied the relationship between academic achievement measured by test scores and high school completion rates on the one hand and resource inputs measured by per pupil expenditures on the other hand. This literature has generally been unsuccessful in discovering such a relationship.[*] Such comparisons can be made internationally, but they are likely to be unsuccessful. Resource inputs, measured generally, are not, by themselves, a useful means for studying the relationship between resources and achievement. To understand the relationship it is necessary to measure the type and quality of resources used and the amount of time the student is exposed to the resource. Another example is the use of expenditures per student as a measure of differences in educational opportunity or quality of education across school districts and states. However, differences in teacher salary scales and the need for special services makes this use problematic.

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[*] See Hanushek, Eric. "The Impact of Differential Expenditures on School Performance," *Education Researcher*, May 1989, and "The Economics of Schooling: Production and Efficiency in Public Schools," *Journal of Economic Literature*, September 1986 for a summary of this literature.

Indicator 1:25 National index of public school revenues

The national index reported here reflects what is spent on the average public school student relative to the taxpayer's ability to pay. The numerator is revenues per pupil, a measure of the resources or services accorded to the average pupil. The denominator is income per capita, a measure of the average taxpayer's ability to pay.

- **Between the school years ending 1940 and 1972, the national index increased 8.7 points or about 53 percent. Between school years ending 1972 and 1982, the index remained fairly stable (between 25 and 26). Since then, the index increased 3.4 points or about 13.6 percent.**
- **In 1989, per pupil expenditures ranged from $2,790 in Utah to $8,117 in Alaska. The state index ranged from a low of 22.8 in Utah to a high of 42.2 in both Wyoming and Alaska (supplemental table 1:25-2).**

National index of public school revenues per pupil, by enrollment in relation to per capita income: Selected school years ending 1940–1990

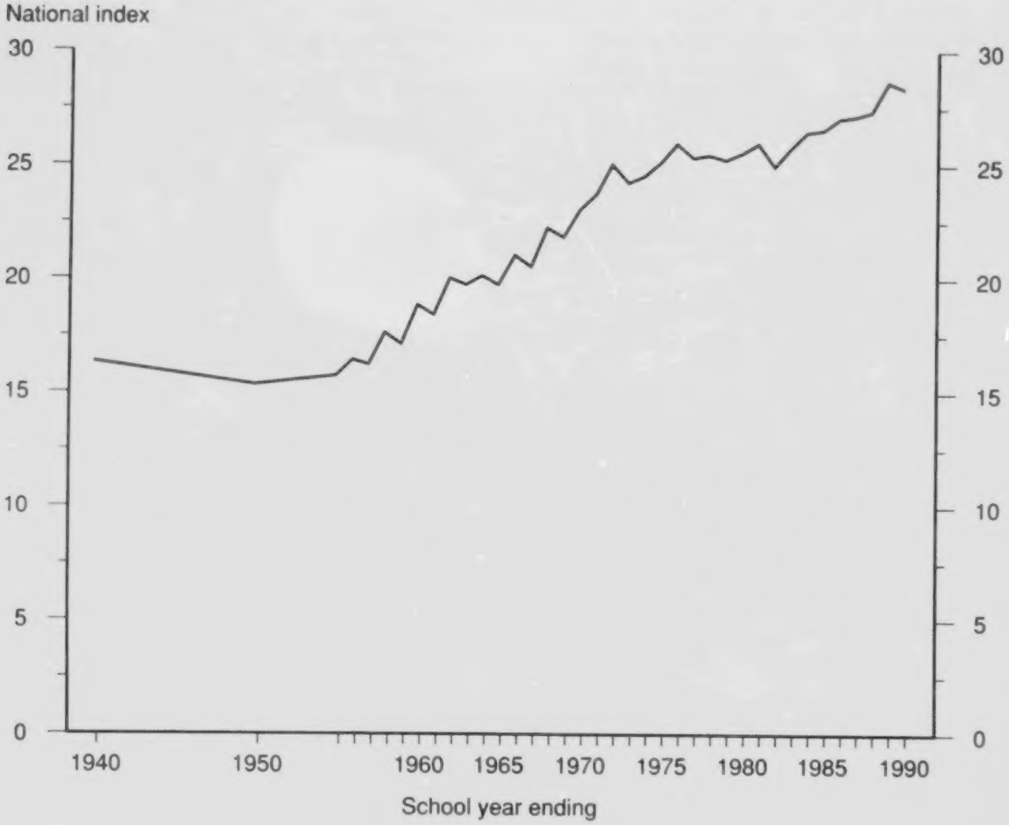
School year ending	National index	Total education revenues[1] (billions)	Public elementary/ secondary enrollment (millions)	Total per pupil education revenues[1]	Total personal income[1] (billions)	Total population (millions)	Per capita personal income[1]
1940	16.5	$21.4	25.4	$845	$669.5	131.0	$5,107
1950	15.5	29.1	25.1	1,160	1,113.4	149.2	7,460
1960	19.0	65.9	35.2	1,872	1,745.5	177.1	9,855
1962	20.2	76.2	37.5	2,034	1,852.2	183.7	10,081
1964	20.3	87.3	40.2	2,172	2,023.7	189.3	10,690
1966	21.2	104.6	42.2	2,481	2,278.1	194.3	11,722
1968	22.4	124.2	43.9	2,829	2,508.7	198.8	12,621
1970	23.2	142.6	45.6	3,127	2,738.1	202.7	13,505
1972	25.2	160.5	46.1	3,483	2,869.8	207.7	13,817
1974	24.7	170.5	45.4	3,753	3,225.7	211.9	15,219
1976	26.1	172.1	44.8	3,841	3,173.6	216.0	14,694
1978	25.6	174.7	43.6	4,009	3,448.4	220.3	15,653
1980	25.7	173.5	41.6	4,166	3,642.1	225.1	16,180
1982	25.1	157.6	40.0	3,938	3,605.3	230.2	15,663
1984	26.6	164.5	39.3	4,192	3,705.0	234.8	15,778
1986	27.2	180.2	39.4	4,570	4,017.6	239.3	16,787
1988	27.5	194.0	40.0	4,850	4,310.1	244.0	17,666
1990	28.5	213.3	40.5	5,264	4,596.4	248.8	18,474

NOTE: For calculation of the national index and other values for this indicator, see supplemental note 1:25.

[1] In constant 1990 dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data Survey, various years, *Early Estimates: Key Statistics for Public Elementary and Secondary Education*, and unpublished data.

Chart 1:25 Trends in the national index of public school revenues per pupil in relation to per capita income: Selected school years ending 1940–1990



Plotted points include school years ending 1940, 1950, 1955–1990.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data Survey, various years, *Early Estimates: Key Statistics for Public Elementary and Secondary Education*, and unpublished data.

H. Fiscal Characteristics

Indicator 1:26 International comparisons of *public* expenditures for elementary and secondary education

Public expenditures for elementary and secondary education are an indication of public investment in education. In the United States and other countries there are additional private expenditures for education. There are alternative methods for comparing public expenditures for education with those of other nations. Public expenditures may be divided by 1) gross domestic product (GDP), 2) elementary and secondary enrollment, and 3) enrollment as a percent of GDP per capita. The first provides a measure of the fraction of a country's resources that are allocated to public education. The second provides a measure of the public investment in each child who is in the education system. The third provides a measure of public educational investment in each child compared to available resources per person in the country.

- **Public expenditures for elementary and secondary education for the 1986–87 school year were 3.5 percent of GDP in the United States. Canada expended a larger fraction; Japan and West Germany expended smaller fractions.**
- **Public expenditures per student in elementary and secondary education in the United States were $3,238 for the 1986–87 school year. Canada spent more per pupil; Japan, West Germany, the United Kingdom, France, and Italy spent less.**
- **Public expenditures per student in elementary and secondary education for the 1986–87 school year were 19 percent of GDP per capita in the United States. This index of investment per student compared to income per person was higher in Canada and the United Kingdom, but lower in Japan and West Germany.**

Current *public* expenditures for education in fiscal year 1987 U.S. dollars, by country: School year beginning fall 1986

Country	Enrollment grades K–12[1] (thousands)	Current *public* education expenditures: Total (millions)[2]	Total: as percent of GDP[3]	Per pupil ($)[2]	Per pupil: as percent of GDP[3]/capita
United States	45,205	$146,321	3.50	$3,238	18.7
Japan	23,936	45,566	3.04	1,904	15.4
West Germany	10,751	20,856	2.69	1,941	15.3
United Kingdom	9,359	23,407	3.54	2,502	21.5
France	12,048	25,106	3.70	2,084	17.0
Italy	10,513	19,087	2.91	1,816	15.8
Canada	4,938	16,962	4.14	3,436	21.3

[1] For the United States enrollment includes nursery school enrollment in regular elementary schools. For other countries enrollment includes enrollment in education preceding the first and at the first and second levels. See supplemental note 1:26 for a definition of these levels.

[2] Purchasing power parity indices were used to convert other currencies to U.S. dollars.

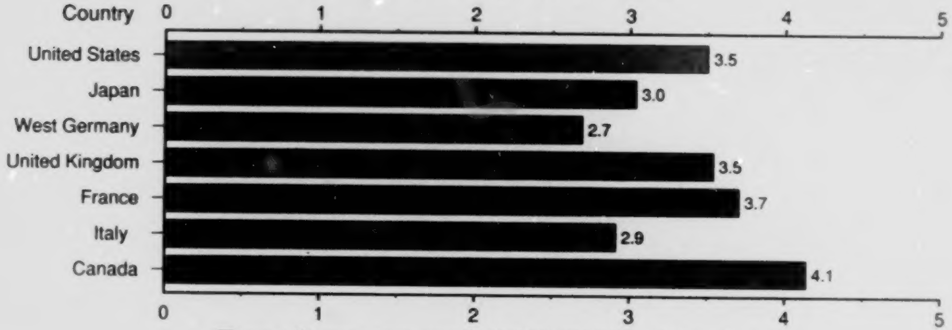
[3] Gross domestic product is gross national product less net property income from abroad.

NOTE: See notes to supplemental table 1:26-1 and supplemental note 1:26 for discussion of the data.

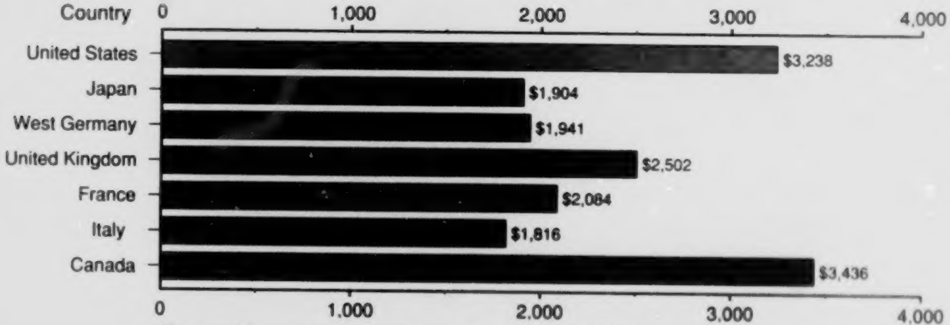
SOURCE: Unesco *Statistical Yearbook*, 1990 and 1989 editions; U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1990*; Organization for Economic Cooperation and Development, *National Accounts, Volume 1, Main Aggregates: 1965–1988.*

Chart 1:26 International comparisons of *public* expenditures for elementary and secondary education: 1986–1987

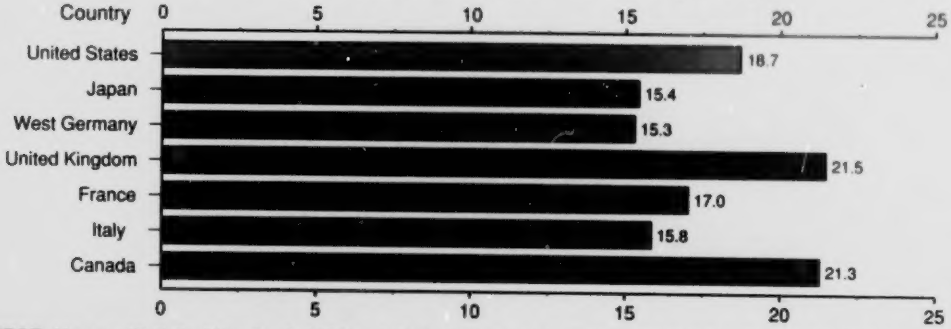
Expenditures as a percent of GDP



Expenditures per pupil (1986–87 U.S. dollars)



Expenditures per pupil as a percent of GDP per capita



SOURCE: Unesco *Statistical Yearbook*, 1990 and 1989 editions; U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1990*; Organization for Economic Cooperation and Development, *National Accounts, Volume 1, Main Aggregates: 1965–1988.*

I. Teachers and Administrators

The 1990s are projected to be a time of increasing demands on the schools. As student enrollment rises (*Indicators 1:16 and 1:17*), the demand for new hiring of teachers will likely also increase. It is expected that more than 200,000 new teachers will be needed each year between 1990 and 2000.[1] Yet, the number of students planning to make a career of teaching keeps dwindling.[2]

Many argue that higher teacher salaries would increase the supply of qualified teachers. For all public school teachers, the average salary has risen almost 21 percent in constant dollars since 1980-81, and 49 percent since 1960. Secondary school teachers, on average, continue to earn higher salaries than elementary teachers, but since 1960, salaries of elementary teachers have had a higher percent increase. Beginning teacher salaries averaged about $19,000 in the early 1980s. Since then, the average salary has increased, and in 1990 it was over $22,400. Still, problems exist. Relative to other professions, teachers continue to earn considerably less. Liberal arts and business administration majors (who in the early and mid-1970s expected to earn salaries similar to beginning teacher salaries), now expect to earn more[3] (*Indicator 1:27*).

The overwhelming majority of teachers and administrators are white, while the composition of students, nationally, grows increasingly minority. In public schools, in 1987–88, about 88 percent of both teachers and administrators were white. Private schools showed even higher shares. There, almost 94 and 95 percent of teachers and principals, respectively, were white (*Indicator 1:28;* also see *indicator 1:18*).

In public schools, in 1987–88, more than 75 percent were male; but in private schools, about 48 percent were males. These figures contrast sharply with those for teachers. In public schools, 70 percent of teachers were female, and in private schools, an even higher percentage (78 percent) were female. Thus, while the overwhelming majority of teachers are female, few (in public schools) become school administrators (*Indicator 1:18*).

Included in plans to attract more individuals to teaching are alternative programs for teacher certification. Various policies have been implemented in a number of states to meet the expected increased demand for teachers. Available data indicate a very high percentage of teachers are certified. In 1987–88, about 93 percent of all full-time teachers in public schools were certified to teach in their primary assignment field. However, only about 70 percent majored in their primary assignment field in college, so more than one-quarter did not concentrate in this field in college. On a more positive note, in 1987–88, a little more than half of all public school teachers had earned graduate degrees. The greatest share of teachers with graduate degrees was found in suburban communities. Teachers in suburban communities were also more likely to be certified and to have majored in their primary assignment field than were teachers in general. Teachers in rural/small city areas were least likely to have a graduate degree, well below the percentage in both urban and suburban areas. Of all public school teachers in 1987–88, math and science teachers were least likely to have majored in their primary field assignment (*Indicator 1:30*).

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[1] U.S. Department of Education, National Center for Education Statistics, *The Condition of Education, 1990, Volume 1, indicator 1:28*; *Projection of Education Statistics to 2001*, 1990.

[2] Indicator 2:9 illustrates that since 1972 the number of students majoring in education has dropped by almost 49 percent.

[3] The American Federation of Teachers, *Survey and Analysis of Salary Trends: 1990*, July, 1990.

Each year, for a variety of reasons, teachers leave their schools. In 1987–88, about 9 percent of public school teachers and 17 percent of private school teachers did so. Of the public school teachers, about 5 percent left to teach elsewhere, but almost 4 percent left the field of teaching. Of the private school teachers, 9 percent left to teach elsewhere, but 8 percent left teaching. Public and private school teachers leaving the teaching profession do so for substantially different reasons. Public school leavers are much more likely than private school leavers to retire, and are less likely to switch to a nonteaching profession or to assume homemaking or childbearing responsibilities (*Indicator 1:29*).

In conclusion, the condition of teachers presented above is mixed. Teacher salaries have substantially increased in real dollars, but this compensation is still below other comparable professions. Women are under represented in administrator positions, and minorities are under represented in both teaching and administration. About half of all teachers have a graduate degree. Most teachers are certified for their primary assignment field, but more than one-quarter did not concentrate in this field in college. The situation is particularly severe in math and science, where less than 40 percent majored in their primary assignment field. About 9 percent of all public school teachers and 17 percent of private school teachers left their jobs in 1987–88. More than half of these moved to another teaching position, but a significant percentage left the profession altogether.

Indicator 1:27 Average annual salary of public school teachers

At all levels of government, there has been much discussion about the supply of teachers for the public schools. Education officials are experimenting with teacher salary structures, creating new career steps, career ladders, merit pay schemes, and new positions with greater authority and responsibility. In the past, such experiments have been associated with increases in teachers' salaries.

- **Between school years ending 1960 and 1990, average teacher salaries, adjusted for inflation, increased by about 49 percent; average elementary salaries, by about 51 percent; and average secondary salaries, by 43 percent.**
- **Between 1976 and 1982, the average beginning salary for teachers declined sharply, from $21,296 to $18,703 (in constant 1990 dollars). Since 1984, this figure has increased. By 1990, the average beginning salary of $22,427 had almost returned to the 1974 beginning average salary of $22,467.**

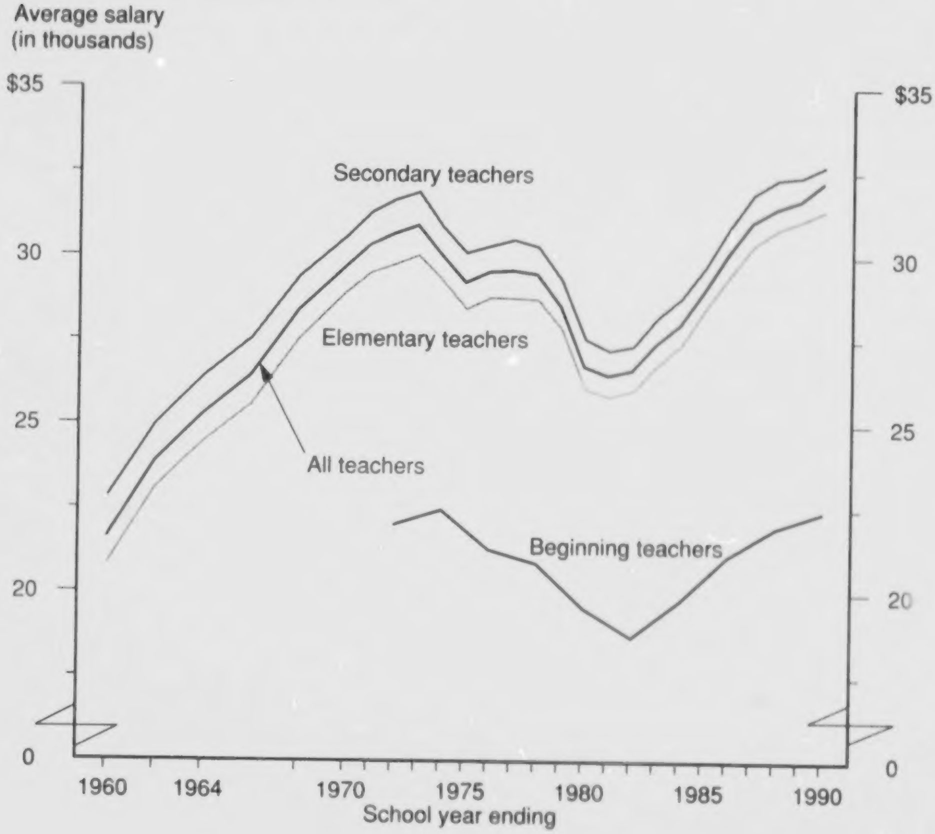
Average annual and beginning salary (in constant 1990 dollars) of teachers in public elementary and secondary public schools: Selected years 1960-1990

School year ending	All teachers	Percent change since 1960	Elementary teachers	Secondary teachers	Beginning teacher salary
1960	$21,603	—	$20,825	$22,819	—
1962	23,852	10.4	23,095	24,977	—
1964	25,269	17.0	24,468	26,411	—
1966	26,421	22.3	25,582	27,546	—
1968	28,375	31.3	27,554	29,404	—
1970	29,686	37.4	28,949	30,598	—
1972	30,660	41.9	29,772	31,690	$22,019
1974	30,029	39.0	29,296	30,885	22,467
1976	29,536	36.7	28,786	30,326	21,296
1978	29,469	36.4	28,736	30,308	20,885
1980	26,742	23.8	26,071	27,561	19,552
1982	26,625	23.2	26,043	27,358	18,703
1984	27,998	29.6	27,409	28,810	19,774
1986	30,098	39.3	29,468	30,901	21,106
1988	31,448	45.6	30,851	32,329	21,963
1990	32,249	49.3	31,417	32,740	22,427

— Not available.

SOURCE: National Education Association, *Estimates of School Statistics, 1990*, latest edition, 1990, copyright 1990 by NEA; American Federation of Teachers, *Survey and Analysis of Salary Trends*, 1990.

Chart 1:27 **Trends in average annual salary of public school teachers and average beginning salary for teachers (in constant 1990 dollars): Selected school years ending 1960–1990**



Plotted points for average annual salary for teachers are: even years 1960–1968, and all years 1970–1990. Plotted points for average beginning salary for teachers are: even years 1972–1990.

SOURCE: National Education Association, *Estimates of School Statistics, 1990*, latest edition, 1990, copyright 1990 by NEA; American Federation of Teachers, *Survey and Analysis of Salary Trends*, 1990.

Indicator 1:28 Characteristics of teachers and school administrators

School administrators (principals) are usually responsible for administering most of a school's operations. Teachers must work with the principals in implementing the curriculum and school policies. Together they coordinate the core of school activities and do much to set the tone of a school.

- **The vast majority of school teachers and administrators are white, while the proportion of minority students continues to increase rapidly (see *Indicator 1:17*).**
- **In public schools, 75 percent of the administrators are male, but 70 percent of the teachers are female. In private schools, just over 50 percent of the administrators are female, but 78 percent of the teachers are female.**

Selected characteristics of teachers and school administrators: School year 1987–1988

	Teachers				Administrators			
Characteristics	Public school	Percent of total	Private school	Percent of total	Public school	Percent of total	Private school	Percent of total
Total	2,323,204	100.0	307,131	100.0	77,890	100.0	25,401	100.0
Sex								
Male	681,161	29.3	66,785	21.7	58,585	75.2	12,131	47.8
Female	1,631,168	70.2	239,975	78.1	19,118	24.5	13,243	52.1
Not reported	10,875	0.5	370	0.1	—	—	—	—
Race/ethnicity								
American Indian, Alaskan native	24,670	1.1	2,827	0.9	821	1.1	—	—
Asian or Pacific Islander	21,307	0.9	3,987	1.3	434	0.6	—	—
Black	190,018	8.2	7,165	2.3	6,696	8.6	771	3.0
White	2,050,400	88.3	288,432	93.9	69,048	88.6	24,056	94.7
Not reported	36,810	1.6	4,719	1.5	890	1.1	—	—
Ethnic origin*								
Hispanic	67,084	2.9	8,569	2.8	2,483	3.2	629	2.5
Non-Hispanic	2,207,746	95.0	292,566	95.3	73,245	94.0	24,167	95.1
Not reported	48,374	2.1	5,995	2.0	2,162	2.8	604	2.4
Age								
Under 40	1,124,105	48.4	170,130	55.4	14,430	18.5	7,608	30.0
40 to 49	752,301	32.4	83,021	27.0	34,163	43.9	9,849	38.8
50 or more	416,857	17.9	49,378	16.1	28,827	37.0	7,682	30.2
Not reported	29,941	1.3	4,601	1.5	469	0.6	—	—

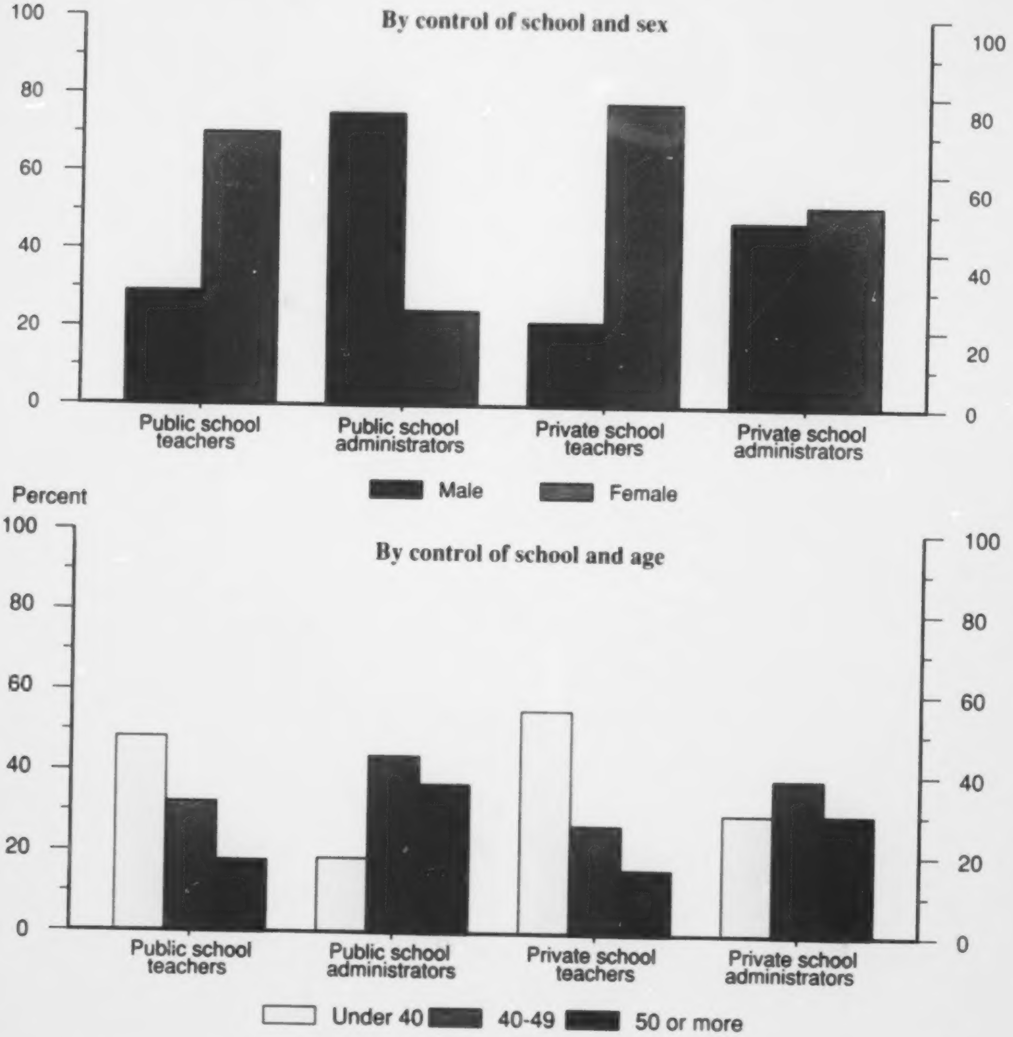
— Too few sample cases for a reliable estimate.

* Hispanics and non-Hispanics may be of any race.

NOTE: Details may not add to totals due to rounding or missing values in cells with too few sample cases, or item nonresponse. Cell entries may be underestimates due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, *Selected Characteristics of Public and Private School Administrators (Principals): 1987–88*, 1990; *Characteristics of Public and Private School Teachers, 1987–88*, 1990.

Chart 1:28 Selected characteristics of teachers and school administrators: 1987–1988



SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffings survey, *Selected Characteristics of Public and Private School Administrators (Principals): 1987–88*, 1990; *Characteristics of Public and Private School Teachers, 1987–88*; 1990.

Indicator 1:29 Teacher attrition in public and private schools

Data on teacher attrition and the destinations of separating teachers provide insights into the dynamics of the teacher workforce and thus are important to understanding the supply of experienced teaching personnel.

- **The attrition rate of private school teachers is almost twice that of public school teachers: 17 versus 9 percent.***
- **Although the majority of teachers who leave their jobs move to other teaching positions, a substantial proportion leave the profession.**
- **Public and private school teachers leaving the teaching profession do so for substantially different reasons. Public school leavers are much more likely than private school leavers to retire and much less likely to switch to a nonteaching profession or to assume homemaking or child rearing responsibilities.**
- **In public schools, the attrition rate does not vary much by urbanicity of school. However, the destination of those leaving the teaching profession does differ among the various types of communities. Teachers in rural public schools are less likely than those in urban or suburban public schools to retire, but they are more likely to become unemployed or to take a nonteaching job.**

Teacher attrition, by sector and urbanicity: Fall 1986 to Fall 1987

Attrition status and destination	Public schools				Private schools			
	Total	Rural/ small city	Sub- urban	Urban	Total	Rural/ small city	Sub- urban	Urban
	Attrition rate, by destination (percent)							
Total	9.0	8.7	8.7	9.6	17.1	18.1	15.0	17.6
Teaching elsewhere	5.2	5.1	4.8	5.6	9.0	9.3	8.3	9.3
Left profession	3.8	3.6	3.9	4.0	8.0	8.8	6.7	8.3
	Destination of those leaving profession: Percentage distribution							
Working at nonteaching job	18.7	21.4	14.2	17.6	37.1	40.3	33.8	36.3
Retired, disabled, deceased	41.6	38.7	44.8	43.8	8.9	7.4	9.8	9.6
Homemaking and/or child rearing	13.2	14.0	15.5	10.4	26.9	26.8	31.0	24.9
Other	26.5	25.8	25.5	28.1	27.2	25.5	25.4	29.2

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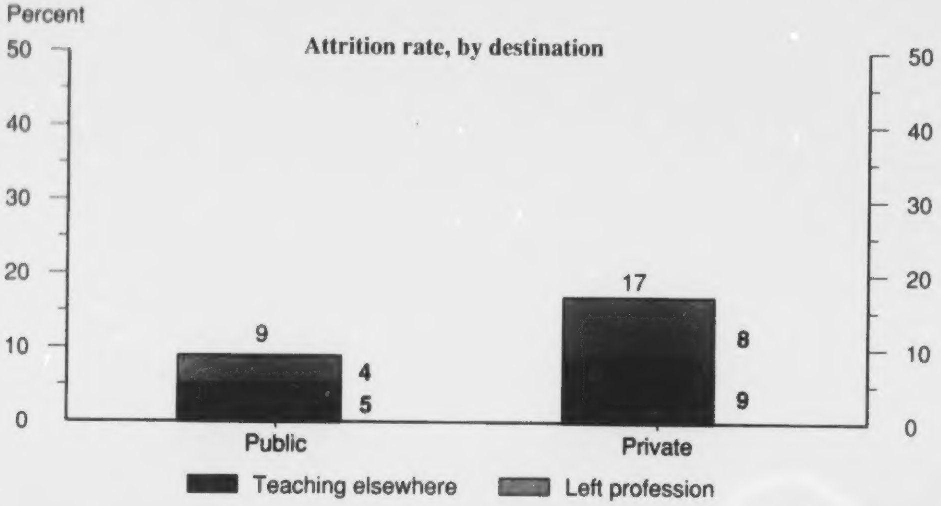
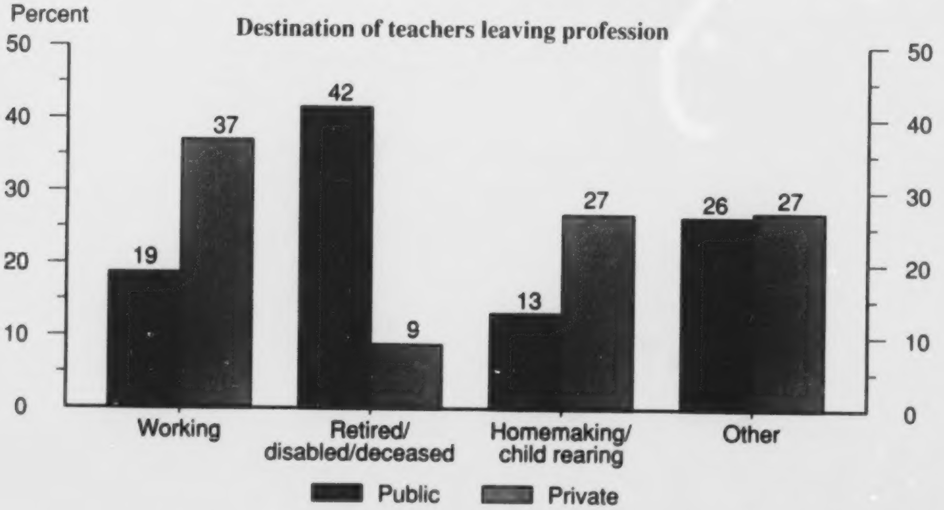
* For purposes of this indicator, the attrition rate is based on reports from schools and is defined as the percent of teachers who held full-time positions in the fall of 1986 but were not in the same school in the fall of 1987.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987-88 Schools and Staffing Survey.

Chart 1:29 Teacher attrition and destination of leavers, by sector: Fall 1986-Fall 1987



Attrition rate, by destination



Destination of teachers leaving profession

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987-88 Schools and Staffing Survey.

Indicator 1:30 Certification and education of full-time public secondary school teachers

As concerns regarding the quality of American education grow, increasing attention is being given to the qualifications of the nation's teachers, especially math and science teachers. Certification status and educational background are indirect measures of those qualifications.

- **More than 9 out of 10 full-time teachers in public secondary schools are certified to teach in their primary assignment fields, and 8 out of 10 either majored or minored in those fields.**
- **About one-fourth of full-time public secondary school teachers have a secondary assignment field. Of these, only two-thirds are certified to teach the field, and only about one-half either majored or minored in it.**
- **Of those with a secondary assignment field, teachers in urban communities are less likely to be certified than those in suburban or rural communities.**
- **Science teachers are less likely to have majored or minored in their primary assignment field than other teachers (supplemental table 1:30-1).**
- **Teachers with secondary assignments in mathematics are less likely to have majored or minored in their fields than teachers with other secondary assignments (supplemental table 1:30-1).**

Percent of full-time public secondary school teachers with selected professional characteristics: 1987–88

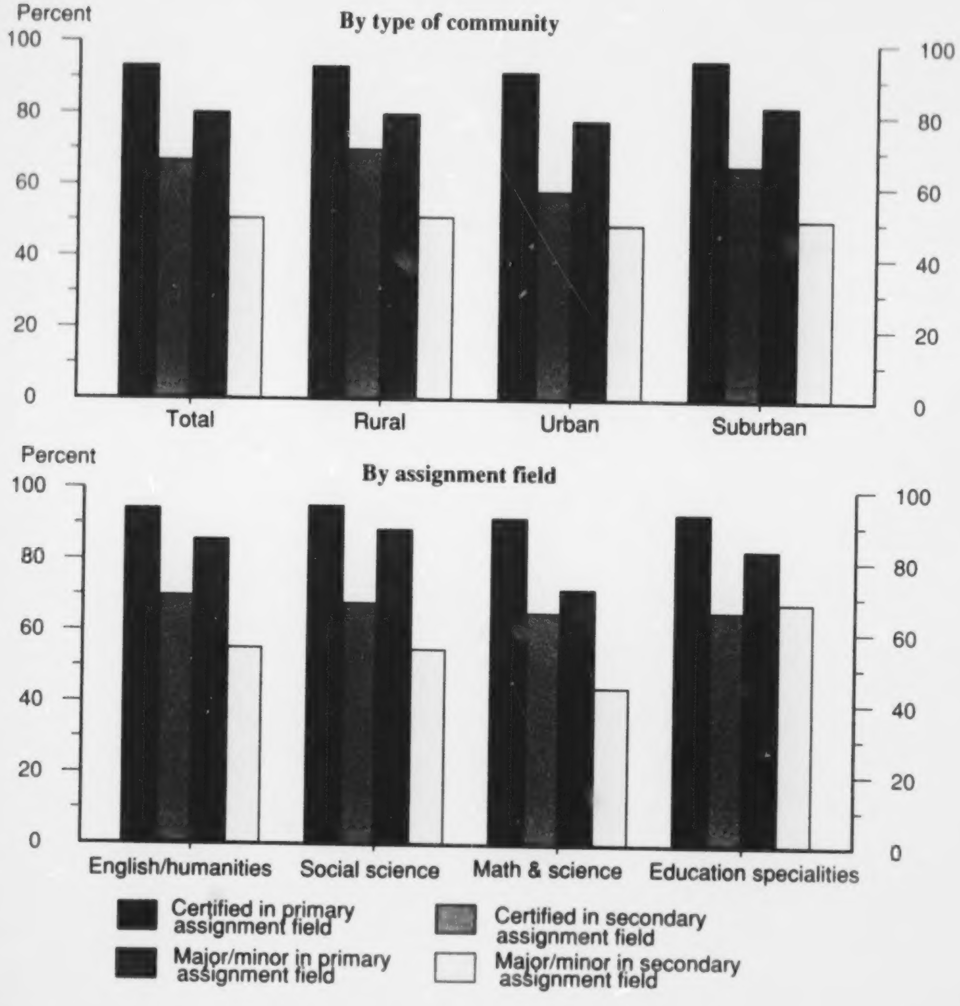
Type of community and assignment field	Certified in primary assignment field	Certified in secondary assignment field*	Majored or minored in primary assignment field	Majored or minored in secondary assignment field*
All teachers	93.3	66.7	80.2	50.7
By type of community				
Rural/small city	93.3	70.0	80.0	51.2
Urban	91.8	58.4	78.3	49.1
Suburban	95.3	65.8	82.5	50.8
By assignment field				
English and humanities	94.2	69.8	85.6	55.3
Social science	95.0	67.8	88.6	54.9
Math and science	91.8	65.3	71.9	44.3
Education specialties	93.2	65.8	83.1	68.3

*Calculated only for those who have a secondary assignment field.

NOTE: See supplemental note 1:30 for definitions of certification and major/minor in assignment field. Education specialties are: elementary, physical, special, and vocational education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987-88 Schools and Staffing Survey.

Chart 1:30 Percent of full-time public secondary school teachers with selected professional characteristics, by type of community and assignment field: 1987-88



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987-88 Schools and Staffing Survey.

A. Supplemental Tables and Notes

Indicator 1:1

Table 1:1-1 Enrollment of 3- to 4-year-olds, all races: 1971–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
	(In thousands)					
1971	6,986	993	486	14.2	7.0	—
1972	6,781	1,214	443	17.9	6.5	16.6
1973	7,000	1,242	450	17.7	6.4	19.1
1974	6,966	1,516	492	21.8	7.1	21.3
1975	6,677	1,629	472	24.4	7.1	23.0
1976	6,239	1,428	520	22.9	8.3	24.1
1977	6,040	1,506	429	24.9	7.1	25.4
1978	6,052	1,717	355	28.4	5.9	27.3
1979	6,095	1,748	391	28.7	6.4	29.2
1980	6,216	1,891	391	30.4	6.3	29.7
1981	6,476	1,946	387	30.0	6.0	30.6
1982	6,659	2,078	377	31.2	5.7	30.7
1983	6,988	2,150	464	30.8	6.6	30.8
1984	7,189	2,187	420	30.4	5.8	31.1
1985	7,191	2,312	489	32.2	6.8	31.9
1986	7,235	2,395	419	33.1	5.8	32.3
1987	7,163	2,275	464	31.8	6.5	32.5
1988	7,317	2,380	416	32.5	5.7	33.7
1989	7,405	2,731	479	36.9	6.5	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-2 Enrollment of white 3- to 4-year-olds: 1971–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
	(In thousands)					
1971	5,794	831	377	14.3	6.5	—
1972	5,758	1,016	344	17.6	6.0	16.5
1973	5,880	1,022	341	17.4	5.8	19.0
1974	5,804	1,273	386	21.9	6.7	21.2
1975	5,518	1,339	359	24.3	6.5	23.0
1976	5,124	1,169	390	22.8	7.6	24.0
1977	4,952	1,230	312	24.8	6.3	25.1
1978	4,965	1,373	249	27.7	5.0	27.1
1979	4,991	1,440	255	28.9	5.1	29.1
1980	5,074	1,562	282	30.8	5.6	29.9
1981	5,291	1,589	293	30.0	5.5	30.7
1982	5,441	1,696	256	31.2	4.7	30.8
1983	5,668	1,768	365	31.2	6.4	31.0
1984	5,782	1,776	303	30.7	5.2	31.7
1985	5,836	1,940	310	33.2	5.3	32.7
1986	5,867	2,008	288	34.2	4.9	33.4
1987	5,837	1,922	300	32.9	5.1	33.7
1988	5,887	2,008	280	34.1	4.8	34.2
1989	5,981	2,125	232	35.5	3.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-3 Enrollment of black 3- to 4-year-olds: 1971–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
		(In thousands)				
1971	1,076	120	96	11.2	8.9	—
1972	956	178	92	18.6	9.6	16.2
1973	1,013	192	100	19.0	9.9	19.1
1974	1,030	204	96	19.8	9.3	21.2
1975	1,006	251	94	25.0	9.3	22.3
1976	968	214	120	22.1	12.4	23.9
1977	932	229	100	24.6	10.7	26.0
1978	933	293	93	31.4	10.0	27.8
1979	944	260	125	27.5	13.2	29.1
1980	972	276	95	28.4	9.8	28.0
1981	973	272	85	28.0	8.7	28.4
1982	1,216	352	120	28.9	9.9	28.6
1983	1,071	309	77	28.9	7.2	28.8
1984	1,131	324	108	28.6	9.5	28.4
1985	1,100	306	163	27.8	14.8	28.3
1986	1,066	303	107	28.4	10.0	27.2
1987	1,066	268	125	25.1	11.7	25.6
1988	1,124	261	113	23.2	10.1	26.4
1989	1,072	331	79	30.9	7.4	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-4 Enrollment of Hispanic 3- to 4-year-olds: 1984–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
		(In thousands)				
1984	621	105	45	16.9	7.2	—
1985	790	158	55	20.0	7.0	19.0
1986	808	162	69	20.0	8.5	20.2
1987	886	185	83	20.8	9.3	18.6
1988	836	127	78	15.2	9.3	18.0
1989	930	169	36	18.2	3.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

NOTE: Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-5 Enrollment of 5-year-olds, all races: 1971–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year avg. percent enrollment in kindergarten*
		(In thousands)						
1971	3,625	70	2,601	388	1.9	71.8	10.7	—
1972	3,384	64	2,511	315	1.9	74.2	9.3	73.2
1973	3,344	74	2,466	347	2.2	73.7	10.4	74.7
1974	3,426	88	2,605	356	2.6	76.0	10.4	75.9
1975	3,509	115	2,739	322	3.3	78.1	9.2	77.7
1976	3,488	85	2,754	371	2.4	79.0	10.6	78.7
1977	3,212	105	2,537	315	3.3	79.0	9.8	78.9
1978	3,060	105	2,406	291	3.4	78.6	9.5	77.5
1979	3,224	114	2,411	273	3.5	74.8	8.5	78.3
1980	3,069	93	2,505	239	3.0	81.6	7.8	78.4
1981	3,170	109	2,494	236	3.4	78.7	7.4	80.2
1982	3,215	104	2,577	247	3.2	80.2	7.7	78.1
1983	3,417	187	2,574	249	5.5	75.3	7.3	78.4
1984	3,423	147	2,725	230	4.3	79.6	6.7	78.9
1985	3,541	167	2,899	248	4.7	81.9	7.0	81.3
1986	3,643	150	3,007	174	4.1	82.5	4.8	81.2
1987	3,699	270	2,924	188	7.3	79.0	5.1	80.5
1988	3,676	242	2,941	221	6.6	80.0	6.0	79.4
1989	3,633	262	2,877	198	7.2	79.2	5.5	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-6 Enrollment of white 5-year-olds: 1971–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year avg. percent enrollment in kindergarten*
		(In thousands)						
1971	3,006	53	2,206	290	1.8	73.4	9.6	—
1972	2,847	57	2,125	267	2.0	74.6	9.4	74.1
1973	2,818	59	2,097	299	2.1	74.4	10.6	75.5
1974	2,862	64	2,218	293	2.2	77.5	10.2	77.1
1975	2,923	91	2,319	236	3.1	79.3	8.1	78.9
1976	2,884	72	2,302	288	2.5	79.8	10.0	79.9
1977	2,606	79	2,099	241	3.0	80.5	9.2	80.0
1978	2,498	82	1,993	219	3.3	79.8	8.8	80.4
1979	2,471	114	2,002	195	4.6	81.0	7.9	81.3
1980	2,507	70	2,080	171	2.8	83.0	6.8	81.2
1981	2,589	95	2,061	154	3.7	79.6	5.9	81.1
1982	2,635	87	2,126	185	3.3	80.7	7.0	80.1
1983	2,668	161	2,137	173	6.0	80.1	6.5	80.3
1984	2,758	124	2,206	170	4.5	80.0	6.2	80.3
1985	2,864	136	2,317	182	4.7	80.9	6.4	81.4
1986	2,918	128	2,428	114	4.4	83.2	3.9	80.6
1987	2,942	248	2,272	139	8.4	77.8	4.7	80.9
1988	2,935	209	2,394	122	7.1	81.6	4.2	79.8
1989	2,918	221	2,332	126	7.6	79.9	4.3	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-7 Enrollment of black 5-year-olds: 1971–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year average percent enrollment in kindergarten*
		(In thousands)						
1971	553	15	346	90	2.7	62.6	16.3	—
1972	487	7	343	46	1.4	70.4	9.4	67.1
1973	454	16	310	41	3.5	68.3	9.0	69.1
1974	517	24	355	71	4.6	68.7	13.7	69.1
1975	514	25	362	75	4.9	70.4	14.6	71.4
1976	533	11	401	70	2.1	75.2	13.1	74.0
1977	495	21	378	61	4.2	76.4	12.3	74.6
1978	477	20	344	62	4.2	72.1	13.0	74.6
1979	461	18	347	65	3.9	75.3	14.1	74.6
1980	472	18	360	58	3.8	76.3	12.3	75.5
1981	477	11	357	66	2.3	74.8	13.8	76.2
1982	581	17	451	63	2.9	77.6	10.8	75.3
1983	484	17	355	68	3.5	73.3	14.0	76.1
1984	515	15	398	49	2.9	77.3	9.5	76.3
1985	544	23	426	58	4.2	78.3	10.7	79.1
1986	576	11	470	46	1.9	81.6	8.0	81.5
1987	576	7	495	40	1.2	86.5	7.0	79.9
1988	565	24	416	80	4.2	73.6	14.2	78.5
1989	581	32	449	56	5.5	77.3	9.7	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-8 Enrollment of Hispanic 5-year-olds: 1984–1989

Year	Population	Enrolled in pre-K	Enrolled in kindergarten	Enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year average percent enrollment in kindergarten*
		(In thousands)						
1984	293	7	223	35	2.4	76.1	11.9	—
1985	544	9	426	36	1.7	78.3	6.6	78.0
1986	433	18	344	27	4.2	79.4	6.2	77.5
1987	404	—	291	34	—	72.4	8.5	78.3
1988	396	20	319	25	5.1	80.6	6.3	76.9
1989	434	22	327	34	5.1	75.4	7.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

NOTE: Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Indicator 1:1

Table 1:1-9 Standard errors for estimated percentages in text table for indicator 1:1

Year	3- to 4-year-olds in pre-K				5-year-olds in kindergarten			
	Total	White	Black	Hispanic*	Total	White	Black	Hispanic*
1972	0.4	0.4	0.9	—	0.6	0.7	1.7	—
1973	0.4	0.4	1.0	—	0.6	0.7	1.7	—
1974	0.4	0.4	1.0	—	0.6	0.6	1.7	—
1975	0.4	0.5	1.1	—	0.6	0.6	1.6	—
1976	0.4	0.5	1.1	—	0.6	0.6	1.6	—
1977	0.5	0.5	1.2	—	0.6	0.6	1.6	—
1978	0.5	0.5	1.2	—	0.6	0.6	1.6	—
1979	0.5	0.5	1.2	—	0.6	0.6	1.6	—
1980	0.5	0.5	1.2	—	0.6	0.6	1.6	—
1981	0.5	0.5	1.1	—	0.6	0.6	1.5	—
1982	0.5	0.5	1.1	—	0.6	0.6	1.6	—
1983	0.5	0.5	1.1	—	0.6	0.6	1.5	—
1984	0.4	0.5	1.1	—	0.6	0.6	1.5	—
1985	0.4	0.5	1.1	1.2	0.5	0.6	1.4	1.6
1986	0.5	0.5	1.1	1.1	0.5	0.6	1.3	1.6
1987	0.4	0.5	1.1	1.1	0.5	0.6	1.4	1.7
1988	0.5	0.5	1.1	1.1	0.5	0.6	1.4	1.7

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-10 Standard errors for estimated numbers and percentages in table 1:1-1

Year	Enrolled in pre-K	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
	(In thousands)				
1971	41	30	0.6	0.4	—
1972	45	29	0.7	0.4	0.4
1973	45	29	0.6	0.4	0.4
1974	49	30	0.7	0.4	0.4
1975	50	30	0.7	0.4	0.4
1976	47	31	0.8	0.5	0.4
1977	48	28	0.8	0.5	0.5
1978	50	26	0.8	0.4	0.5
1979	50	27	0.8	0.4	0.5
1980	51	27	0.8	0.4	0.5
1981	52	27	0.8	0.4	0.5
1982	53	27	0.8	0.4	0.5
1983	55	29	0.8	0.4	0.5
1984	55	28	0.8	0.4	0.4
1985	56	30	0.8	0.4	0.4
1986	57	28	0.8	0.4	0.5
1987	56	29	0.8	0.4	0.4
1988	57	28	0.8	0.4	0.5
1989	59	30	0.8	0.4	—

* The year represents the middle of 3 years over which rates are averaged.

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "School Enrollment...," various years; October Current Population Survey.

Table 1:1-11 Standard errors of estimated numbers and percentages in table 1:1-2

Year	Number enrolled in pre-K	Number enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
	(In thousands)				
1971	38	27	0.7	0.5	—
1972	41	25	0.7	0.4	0.4
1973	41	25	0.7	0.4	0.4
1974	45	27	0.8	0.5	0.4
1975	45	26	0.8	0.5	0.5
1976	42	27	0.8	0.5	0.5
1977	43	24	0.9	0.5	0.5
1978	45	22	0.9	0.4	0.5
1979	45	22	0.9	0.4	0.5
1980	46	23	0.9	0.5	0.5
1981	51	25	0.9	0.4	0.5
1982	52	24	0.9	0.4	0.5
1983	53	28	0.9	0.5	0.5
1984	53	26	0.9	0.4	0.5
1985	55	26	0.9	0.4	0.5
1986	55	25	0.9	0.4	0.5
1987	55	26	0.9	0.4	0.5
1988	55	25	0.9	0.4	0.5
1989	56	23	0.9	0.4	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-12 Standard errors of estimated numbers and percentages in table 1:1-3

Year	Number enrolled in pre-K	Number enrolled in kindergarten	Percent enrolled in Pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
	(In thousands)				
1971	15	13	1.4	1.2	—
1972	17	13	1.8	1.3	0.9
1973	18	13	1.7	1.3	1.0
1974	18	13	1.8	1.3	1.0
1975	19	13	1.9	1.3	1.1
1976	18	14	1.9	1.5	1.1
1977	19	13	2.0	1.4	1.2
1978	20	13	2.1	1.4	1.2
1979	19	15	2.1	1.6	1.2
1980	20	13	2.0	1.3	1.2
1981	20	12	2.0	1.3	1.1
1982	22	15	1.8	1.2	1.1
1983	21	12	2.0	1.1	1.1
1984	22	14	1.9	1.2	1.1
1985	21	17	1.9	1.5	1.1
1986	21	14	2.0	1.3	1.1
1987	20	15	1.9	1.4	1.1
1988	20	14	1.8	1.3	1.1
1989	21	12	2.0	1.1	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-13 Standard errors of estimated numbers and percentages in table 1:1-4

Year	Number enrolled in pre-K	Number enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in kindergarten	Three-year average percent enrollment in pre-K*
	(In thousands)				
1984	13	9	2.1	1.5	—
1985	16	10	2.0	1.3	1.2
1986	16	11	2.0	1.4	1.1
1987	17	12	1.9	1.4	1.1
1988	15	12	1.8	1.4	1.1
1989	17	8	1.8	0.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-14 Standard errors for estimated numbers and percentages in table 1:1-5

Year	Number enrolled in pre-K	Number enrolled in kindergarten	Number enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year avg. percent enrollment kindergarten*
		(In thousands)					
1971	12	38	26	0.3	1.1	0.7	—
1972	11	36	24	0.3	1.1	0.7	0.6
1973	12	36	25	0.4	1.1	0.7	0.6
1974	13	35	25	0.4	1.0	0.7	0.6
1975	15	35	24	0.4	1.0	0.7	0.6
1976	13	34	26	0.4	1.0	0.7	0.6
1977	14	33	24	0.4	1.0	0.7	0.6
1978	14	32	23	0.5	1.0	0.7	0.6
1979	15	35	22	0.5	1.1	0.7	0.6
1980	13	30	21	0.4	1.0	0.7	0.6
1981	15	33	21	0.5	1.0	0.7	0.6
1982	14	32	21	0.4	1.0	0.7	0.6
1983	19	36	21	0.6	1.0	0.6	0.6
1984	17	33	21	0.5	1.0	0.6	0.6
1985	18	32	21	0.5	0.9	0.6	0.5
1986	17	32	18	0.5	0.9	0.5	0.5
1987	22	35	19	0.6	0.9	0.5	0.5
1988	21	34	20	0.6	0.9	0.6	0.5
1989	22	35	19	0.6	1.0	0.5	—

* The year represents the middle of 3 years over which rates are averaged.

— Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-15 Standard errors for estimated numbers and percentages in table 1:1-6

Year	Number enrolled in pre-K	Number enrolled in kindergarten	Number enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year average percent enrollment in kindergarten*
		(In thousands)					
1971	10	34	23	0.3	1.1	0.8	—
1972	11	33	22	0.4	1.2	0.8	0.7
1973	11	33	23	0.4	1.2	0.8	0.7
1974	11	32	23	0.4	1.1	0.8	0.6
1975	13	31	21	0.5	1.1	0.7	0.6
1976	12	30	23	0.4	1.1	0.8	0.6
1977	12	29	21	0.5	1.1	0.8	0.6
1978	13	28	20	0.5	1.1	0.8	0.6
1979	15	28	19	0.6	1.1	0.8	0.6
1980	12	27	18	0.5	1.1	0.7	0.6
1981	14	29	17	0.5	1.1	0.7	0.6
1983	17	29	18	0.7	1.1	0.7	0.6
1984	15	30	18	0.6	1.1	0.6	0.6
1985	16	30	18	0.6	1.0	0.6	0.6
1986	16	29	15	0.5	1.0	0.5	0.6
1987	21	32	16	0.7	1.1	0.5	0.6
1988	20	30	15	0.7	1.0	0.5	0.6
1989	20	31	16	0.7	1.0	0.5	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment...," various years; October Current Population Survey.

Indicator 1:1

Table 1:1-16 Standard errors for estimated percentages and numbers in table 1:1-7

Year	Number enrolled in pre-K	Number enrolled in kindergarten	Number enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year average percent enrollment in kindergarten*
	(In thousands)						
1971	5	16	12	1.0	2.9	2.2	—
1972	4	14	9	0.8	2.9	1.9	1.7
1973	6	14	9	1.2	3.1	1.9	1.7
1974	7	15	11	1.3	2.9	2.1	1.7
1976	5	14	11	0.9	2.6	2.1	1.6
1977	6	13	10	1.3	2.7	2.1	1.6
1978	6	14	10	1.3	2.9	2.2	1.6
1979	6	13	11	1.3	2.8	2.3	1.6
1980	6	13	10	1.2	2.8	2.1	1.6
1981	5	13	11	1.0	2.8	2.2	1.5
1982	6	14	11	1.0	2.4	1.8	1.6
1983	6	14	11	1.2	2.8	2.2	1.5
1984	5	13	9	1.0	2.6	1.8	1.5
1985	7	14	10	1.2	2.5	1.9	1.4
1986	5	13	9	0.8	2.3	1.6	1.3
1987	4	12	9	0.6	2.1	1.5	1.4
1988	7	15	12	1.2	2.6	2.1	1.4
1989	8	14	10	1.3	2.5	1.7	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:1-17 Standard errors for estimated percentages and numbers in table 1:1-8

Year	Number enrolled in pre-K	Number enrolled in kindergarten	Number enrolled in 1st or 2nd grade	Percent enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in 1st or 2nd grade	Three-year average percent enrollment in kindergarten*
	(In thousands)						
1984	4	10	8	1.3	3.5	2.7	—
1985	4	14	8	0.8	2.5	1.5	1.6
1986	6	12	7	1.4	2.7	1.6	1.6
1987	7	12	7	1.8	3.1	1.8	1.7
1988	6	11	7	1.6	2.8	1.7	1.7
1989	7	13	8	1.5	2.9	1.8	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Indicator 1:2

Table 1:2-1 Percent of 8-year-olds 1 or more years below modal grade, by race/ethnicity: Single year figures 1969–1989

Year	All races		White		Black		Hispanic*	
	Male	Female	Male	Female	Male	Female	Male	Female
1969	20.1	12.5	19.5	11.2	24.4	19.4	—	—
1970	17.3	12.8	16.3	12.4	23.9	14.4	—	—
1971	18.6	13.9	17.2	13.2	27.2	16.4	—	—
1972	17.3	12.7	16.6	11.6	22.1	18.5	—	—
1973	18.0	11.4	16.8	11.1	25.3	12.9	—	—
1974	18.5	12.2	18.6	11.4	19.6	17.5	—	—
1975	17.4	13.3	17.8	13.2	18.1	12.9	—	—
1976	16.8	12.6	17.4	11.9	13.9	17.7	—	—
1977	15.9	12.0	15.5	11.0	18.1	15.0	—	—
1978	18.8	14.1	18.3	14.0	21.9	14.4	—	—
1979	21.3	13.6	20.6	13.6	24.0	13.3	—	—
1980	19.6	15.4	19.7	14.8	19.8	18.1	—	—
1981	21.5	16.6	21.6	16.7	21.1	15.6	—	—
1982	24.0	17.5	23.2	17.1	27.3	18.7	—	—
1983	24.2	15.9	25.3	15.1	19.4	18.3	—	—
1984	23.6	17.7	22.2	18.6	33.8	14.6	25.7	31.3
1985	25.3	19.6	25.3	18.4	26.7	23.9	21.3	30.0
1986	25.7	17.9	24.4	17.8	36.6	21.3	27.0	24.5
1987	26.2	20.8	27.1	19.4	25.9	24.3	23.9	10.1
1988	28.8	20.8	29.3	19.8	26.6	26.3	36.4	23.2
1989	29.2	21.5	29.5	22.2	26.5	21.1	31.1	25.2

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of commerce, Bureau of the Census, *Current Population Reports*, Series P-20, School Enrollment...," various years; October Current Population Survey.

Table 1:2-2 Percent of 13-year-olds 1 or more years below modal grade, by race/ethnicity: Single year figures 1969–1989

Year	All races		White		Black		Hispanic*	
	Male	Female	Male	Female	Male	Female	Male	Female
1969	27.1	19.2	25.1	16.8	37.7	33.5	—	—
1970	28.5	18.3	25.7	16.4	46.7	29.3	—	—
1971	27.5	17.5	25.3	16.8	43.7	24.5	—	—
1972	25.9	18.3	24.4	16.8	35.6	26.8	—	—
1973	28.4	19.2	25.1	18.8	49.0	23.1	—	—
1974	27.9	17.5	25.2	15.1	45.9	30.1	—	—
1975	24.9	17.7	24.5	15.6	29.9	28.9	—	—
1976	22.9	16.7	22.0	16.7	30.1	15.9	—	—
1977	24.4	16.0	23.9	13.5	28.5	27.2	—	—
1978	23.1	15.8	21.7	13.9	33.4	25.8	—	—
1979	23.8	18.5	21.1	16.7	37.6	25.8	—	—
1980	27.7	17.0	25.9	15.5	37.5	22.4	—	—
1981	26.4	20.4	25.0	18.5	36.7	32.3	—	—
1982	29.9	21.9	27.3	19.4	41.9	33.3	—	—
1983	35.1	21.2	32.7	20.8	52.5	26.0	—	—
1984	30.9	22.5	28.5	20.5	44.4	32.0	45.0	48.8
1985	31.7	24.0	29.3	20.2	44.1	40.0	48.5	30.5
1986	31.8	24.1	29.6	22.2	44.0	33.1	46.8	41.2
1987	35.6	24.7	34.5	22.7	43.2	33.2	55.1	32.5
1988	33.6	23.7	31.8	21.8	41.7	35.3	44.9	34.3
1989	36.7	26.1	34.0	23.6	51.5	38.0	40.0	40.6

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of commerce, Bureau of the Census, *Current Population Reports*, Series P-20, School Enrollment...," various years; October Current Population Survey.

Table 1:2-3 Percent of 8-year-olds 1 or more years below modal grade, by race/ethnicity: 3-year average[1] 1970–1988

Year	All races		White		Black		Hispanic[2]	
	Male	Female	Male	Female	Male	Female	Male	Female
1970	18.7	13.1	17.7	12.3	25.2	16.7	—	—
1971	17.7	13.1	16.7	12.4	24.4	16.4	—	—
1972	18.0	12.7	16.9	12.0	24.9	15.9	—	—
1973	17.9	12.1	17.3	11.4	22.3	16.3	—	—
1974	18.0	12.3	17.7	11.9	21.0	14.4	—	—
1975	17.6	12.7	17.9	12.2	17.2	16.0	—	—
1976	16.7	12.6	16.9	12.0	16.7	15.2	—	—
1977	17.2	12.9	17.1	12.3	18.0	15.7	—	—
1978	18.7	13.2	18.1	12.9	21.3	14.2	—	—
1979	19.9	14.4	19.5	14.1	21.9	15.3	—	—
1980	20.8	15.2	20.6	15.0	21.6	15.7	—	—
1981	21.7	16.5	21.5	16.2	22.7	17.5	—	—
1982	23.2	16.7	23.4	16.3	22.6	17.5	—	—
1983	23.9	17.0	23.6	16.9	26.8	17.2	—	—
1984	24.4	17.7	24.3	17.4	26.6	18.9	—	—
1985	24.9	18.4	24.0	18.3	32.4	19.9	24.7	28.6
1986	25.7	19.4	25.6	18.5	29.7	23.2	24.1	21.5
1987	26.9	19.8	26.9	19.0	29.7	24.0	29.1	19.3
1988	28.1	21.0	28.6	20.5	26.3	23.9	30.5	19.5

— Not available/applicable.

[1] Three-year average. The 3-year average percentage for 1985 is the average of the percentages for 1984, 1985, and 1986.

[2] Hispanics may be of any race.

SOURCE: U.S. Department of commerce, Bureau of the Census, *Current Population Reports*, Series P-20, School Enrollment...," various years; October Current Population Survey.

Table 1:2-4 Percent of 13-year-olds 1 or more years below modal grade, by race/ ethnicity: 3-year average[1] 1970–1988

	All races		White		Black		Hispanic[2]	
Year	Male	Female	Male	Female	Male	Female	Male	Female
1970	27.7	18.3	25.4	16.7	42.7	29.1	—	—
1971	27.3	18.0	25.1	16.7	42.0	26.9	—	—
1972	27.3	18.3	24.9	17.5	42.8	24.8	—	—
1973	27.4	18.3	24.9	16.9	43.5	26.7	—	—
1974	27.1	18.1	24.9	16.5	41.6	27.4	—	—
1975	25.2	17.3	23.9	15.8	35.3	25.0	—	—
1976	24.1	16.8	23.5	15.3	29.5	24.0	—	—
1977	23.5	16.2	22.5	14.7	30.7	23.0	—	—
1978	23.8	16.8	22.2	14.7	33.2	26.3	—	—
1979	24.9	17.1	22.9	15.4	36.2	24.7	—	—
1980	26.0	18.6	24.0	16.9	37.3	26.8	—	—
1981	28.0	19.8	26.1	17.8	38.7	29.3	—	—
1982	30.5	21.2	28.3	19.6	43.7	30.5	—	—
1983	32.0	21.9	29.5	20.2	46.3	30.4	—	—
1984	32.6	22.6	30.2	20.5	47.0	32.7	—	—
1985	31.5	23.5	29.1	21.0	44.2	35.0	46.8	40.2
1986	33.0	24.3	31.1	21.7	43.8	35.4	50.1	34.7
1987	33.7	24.2	32.0	22.2	43.0	33.9	48.9	36.0
1988	35.3	24.8	33.4	22.7	45.5	35.5	46.7	35.8

— Not available.

[1] Three-year average. The 3-year average percentage for 1985 is the average of the of the percentages for 1984, 1985, and 1986.

[2] Hispanics may be of any race.

SOURCE: U.S. Department of commerce, Bureau of the Census, *Current Population Reports*, Series P-20, School Enrollment...," various years; October Current Population Survey.

Table 1:2-5 Standard errors for estimated percentages in text table for indicator 1:2

	8-year-olds						13-year-olds					
	All races		White		Black		All races		White		Black	
Year*	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1970	0.6	0.6	0.7	0.6	2.2	1.9	0.8	0.7	0.8	0.7	2.6	2.3
1971	0.6	0.6	0.7	0.6	2.2	1.9	0.8	0.7	0.8	0.7	2.6	2.3
1972	0.6	0.6	0.7	0.6	2.3	1.9	0.8	0.7	0.8	0.7	2.6	2.2
1973	0.7	0.6	0.7	0.6	2.2	1.9	0.8	0.7	0.8	0.7	2.6	2.3
1974	0.7	0.6	0.7	0.6	2.2	1.9	0.8	0.7	0.8	0.7	2.6	2.3
1975	0.7	0.6	0.8	0.7	2.1	2.0	0.8	0.7	0.8	0.7	2.5	2.2
1976	0.7	0.6	0.7	0.7	2.1	2.0	0.8	0.7	0.8	0.7	2.4	2.2
1977	0.7	0.6	0.7	0.7	2.1	2.0	0.8	0.7	0.8	0.7	2.4	2.2
1978	0.7	0.6	0.8	0.7	2.2	1.9	0.8	0.7	0.9	0.7	2.5	2.2
1979	0.7	0.6	0.8	0.7	2.2	2.0	0.8	0.7	0.9	0.8	2.5	2.3
1980	0.7	0.7	0.8	0.7	2.3	2.0	0.9	0.8	0.9	0.8	2.6	2.4
1981	0.8	0.7	0.8	0.8	2.3	2.1	0.9	0.8	0.9	0.8	2.5	2.4
1982	0.8	0.8	0.9	0.8	2.4	2.2	0.9	0.9	1.0	0.9	2.8	2.5
1983	0.9	0.8	0.9	0.9	2.6	2.2	0.9	0.9	1.0	0.9	2.8	2.5
1984	0.9	0.8	1.0	0.9	2.7	2.3	1.0	0.9	1.0	0.9	2.9	2.7
1985	0.9	0.8	0.9	0.9	2.8	2.3	1.0	0.9	1.1	1.0	2.9	2.7
1986	0.9	0.8	1.0	0.9	2.9	2.7	1.0	0.9	1.1	1.0	2.9	2.7
1987	0.9	0.8	1.0	0.9	3.0	2.7	1.0	1.0	1.1	1.0	2.9	2.7
1988	0.9	0.9	1.1	1.0	3.0	2.9	1.0	1.0	1.2	1.1	3.2	3.0

* Three-year average. The 3-year average percentage for 1985 is the average of the percentages for 1984, 1985, and 1986.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:2-6 Standard errors for estimated percentages in table 1:2-1

Year	All races		White		Black		Hispanic*	
	Male	Female	Male	Female	Male	Female	Male	Female
1969	1.2	1.0	1.3	1.1	3.7	3.5	—	—
1970	1.2	1.0	1.2	1.1	3.7	3.1	—	—
1971	1.2	1.1	1.3	1.2	3.8	3.2	—	—
1972	1.2	1.1	1.3	1.1	3.8	3.5	—	—
1973	1.3	1.1	1.3	1.1	4.1	3.1	—	—
1974	1.3	1.1	1.4	1.2	3.7	3.5	—	—
1975	1.3	1.2	1.4	1.3	3.7	3.2	—	—
1976	1.3	1.2	1.4	1.2	3.4	3.7	—	—
1977	1.2	1.1	1.3	1.2	3.7	3.4	—	—
1978	1.3	1.2	1.4	1.3	3.8	3.3	—	—
1979	1.4	1.2	1.5	1.3	4.0	3.1	—	—
1980	1.4	1.3	1.5	1.4	3.8	3.7	—	—
1981	1.4	1.3	1.6	1.5	4.0	3.5	—	—
1982	1.5	1.4	1.8	1.6	4.2	3.7	—	—
1983	1.5	1.3	1.8	1.5	4.1	4.1	—	—
1984	1.5	1.4	1.7	1.7	4.9	3.7	5.5	5.9
1985	1.5	1.4	1.8	1.7	4.6	4.2	4.9	5.3
1986	1.5	1.4	1.8	1.6	4.9	4.1	5.3	5.1
1987	1.5	1.4	1.8	1.6	4.1	4.2	5.1	3.4
1988	1.5	1.4	2.0	1.8	4.6	4.6	5.0	4.6
1989	1.5	1.4	2.0	1.8	4.7	4.4	4.7	4.6

— Not available/applicable.

* Hispanics may be of any race.

SOURCE: U.S. Department of commerce, Bureau of the Census, *Current Population Reports*, Series P-20, School Enrollment...," various years; October Current Population Survey.

Indicator 1:2

Table 1:2-7 Standard errors for estimated percentages in table 1:2-2

Year	All races		White		Black		Hispanic*	
	Male	Female	Male	Female	Male	Female	Male	Female
1969	1.4	1.2	1.5	1.3	3.9	3.6	—	—
1970	1.4	1.2	1.4	1.3	3.8	3.5	—	—
1971	1.4	1.2	1.5	1.3	4.0	3.4	—	—
1972	1.3	1.2	1.4	1.3	3.7	3.5	—	—
1973	1.4	1.2	1.4	1.3	3.9	3.2	—	—
1974	1.4	1.2	1.4	1.2	3.9	3.6	—	—
1975	1.4	1.2	1.5	1.3	3.6	3.4	—	—
1976	1.3	1.2	1.4	1.3	3.6	2.9	—	—
1977	1.4	1.2	1.5	1.2	3.5	3.4	—	—
1978	1.4	1.2	1.5	1.2	3.6	3.4	—	—
1979	1.4	1.3	1.5	1.4	3.8	3.4	—	—
1980	1.5	1.3	1.6	1.4	3.8	3.5	—	—
1981	1.5	1.4	1.6	1.5	3.9	3.7	—	—
1982	1.6	1.5	1.7	1.6	3.9	3.7	—	—
1983	1.7	1.5	1.8	1.6	4.3	3.7	—	—
1984	1.6	1.5	1.8	1.6	4.2	4.0	6.7	7.2
1985	1.7	1.6	1.8	1.7	4.3	4.2	6.3	6.5
1986	1.7	1.6	1.9	1.8	4.3	4.0	5.9	6.2
1987	1.8	1.7	1.9	1.8	4.3	4.1	5.6	6.0
1988	1.9	1.8	2.1	1.9	5.1	5.0	7.3	6.5
1989	2.0	1.7	2.2	2.0	5.2	4.9	6.6	6.6

— Not available/applicable.

* Hispanics may be of any race.

SOURCE: U.S. Department of commerce, Bureau of the Census, *Current Population Reports*, Series P-20, School Enrollment...," various years; October Current Population Survey.

Table 1:2-8 Standard errors for estimated percentages in table 1:2-3

Year	All races		White		Black		Hispanic*	
	Male	Female	Male	Female	Male	Female	Male	Female
1970	0.6	0.6	0.7	0.6	2.2	1.9	—	—
1971	0.6	0.6	0.7	0.6	2.2	1.9	—	—
1972	0.6	0.6	0.7	0.6	2.3	1.9	—	—
1973	0.7	0.6	0.7	0.6	2.2	1.9	—	—
1974	0.7	0.6	0.7	0.6	2.2	1.9	—	—
1975	0.7	0.6	0.8	0.7	2.1	2.0	—	—
1976	0.7	0.6	0.7	0.7	2.1	2.0	—	—
1977	0.7	0.6	0.7	0.7	2.1	2.0	—	—
1978	0.7	0.6	0.8	0.7	2.2	1.9	—	—
1979	0.7	0.6	0.8	0.7	2.2	2.0	—	—
1980	0.7	0.7	0.8	0.7	2.3	2.0	—	—
1981	0.8	0.7	0.8	0.8	2.3	2.1	—	—
1982	0.8	0.8	0.9	0.8	2.4	2.2	—	—
1983	0.9	0.8	0.9	0.9	2.6	2.2	—	—
1984	0.9	0.8	1.0	0.9	2.7	2.3	—	—
1985	0.9	0.8	0.9	0.9	2.8	2.3	3.2	3.3
1986	0.9	0.8	1.0	0.9	2.9	2.7	3.1	2.9
1987	0.9	0.8	1.0	0.9	3.0	2.7	3.2	2.7
1988	0.9	0.9	1.1	1.0	3.0	2.9	3.3	2.9

— Not available/applicable.

* Hispanics may be of any race.

SOURCE: U.S. Department of commerce, Bureau of the Census, *Current Population Reports*, Series P-20, School Enrollment...," various years; October Current Population Survey.

Indicator 1:2

Table 1:2-9 Standard errors for estimated percentages in table 1:2-4

Year	All races		White		Black		Hispanic*	
	Male	Female	Male	Female	Male	Female	Male	Female
1970	0.8	0.7	0.8	0.7	2.6	2.3	—	—
1971	0.8	0.7	0.8	0.7	2.6	2.3	—	—
1972	0.8	0.7	0.8	0.7	2.6	2.2	—	—
1973	0.8	0.7	0.8	0.7	2.6	2.3	—	—
1974	0.8	0.7	0.8	0.7	2.6	2.3	—	—
1975	0.8	0.7	0.8	0.7	2.5	2.2	—	—
1976	0.8	0.7	0.8	0.7	2.4	2.2	—	—
1977	0.8	0.7	0.8	0.7	2.4	2.2	—	—
1978	0.8	0.7	0.9	0.7	2.5	2.2	—	—
1979	0.8	0.7	0.9	0.8	2.5	2.3	—	—
1980	0.9	0.8	0.9	0.8	2.6	2.4	—	—
1981	0.9	0.8	0.9	0.8	2.5	2.4	—	—
1982	0.9	0.9	1.0	0.9	2.8	2.5	—	—
1983	0.9	0.9	1.0	0.9	2.8	2.5	—	—
1984	1.0	0.9	1.0	0.9	2.9	2.7	—	—
1985	1.0	0.9	1.1	1.0	2.9	2.7	3.6	3.8
1986	1.0	0.9	1.1	1.0	2.9	2.7	3.4	3.6
1987	1.0	1.0	1.1	1.0	2.9	2.7	3.5	3.5
1988	1.1	1.0	1.2	1.1	3.2	3.0	3.8	3.8

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years; October Current Population Survey.

Table 1:3-1 Average event dropout rate from grades 10–12, ages 14–24, by race/ethnicity and sex: 1970–1988 (3-year average)

Year[1]	Total	White		Black		Hispanic[2]
		Male	Female	Male	Female	Both sexes[3]
				Percent		
1970	5.5	4.9	5.1	10.8	8.2	—
1971	5.8	5.1	5.4	10.7	8.5	—
1972	6.0	5.6	5.4	10.5	8.0	—
1973	6.4	6.2	5.5	10.9	10.0	10.2
1974	6.3	6.0	5.4	10.3	9.9	10.2
1975	6.1	6.1	5.3	9.2	9.2	9.2
1976	6.1	6.0	5.5	8.2	8.1	8.7
1977	6.3	6.7	5.3	9.0	8.4	9.1
1978	6.6	6.8	5.6	8.7	10.1	10.4
1979	6.5	6.6	5.4	8.9	9.9	11.5
1980	6.2	6.2	5.3	8.3	10.0	11.1
1981	5.8	5.8	4.9	8.8	8.4	10.5
1982	5.5	5.4	4.7	8.5	7.9	10.0
1983	5.2	5.3	4.6	7.5	6.2	10.1
1984	5.1	5.2	4.5	7.1	6.4	10.2
1985	5.0	5.0	4.6	6.5	6.0	10.9
1986[4]	4.5	4.2	4.0	6.2	5.7	9.0
1987	4.4	4.4	4.0	5.9	5.7	9.3
1988[5]	4.5	4.4	3.9	6.6	7.0	7.9

— Not available.

[1] The year represents the middle of the 3 years over which rates are averaged. Thus the rate for 1988 is the average of the single-year rates for 12-month periods ending October 1987, 1988, and 1989.

[2] Hispanics may be of any race.

[3] Sample size is too small to calculate reliable estimates by sex.

[4] The decline in the 1986 rates in part reflect new editing procedures by the Bureau of the Census for cases with missing data on school enrollment items. The effect of the editing changes for 1986, a bridge year in which the data were edited using both the old and new procedures, was to decrease the single-year event rate from 4.7 (old procedure) to 4.3 (new procedure). The 3-year rate for 1986 was calculated using 1 year (1985) based on old editing procedures and 2 years (1986 and 1987) based on the new editing procedures.

[5] The 3-year average for 1988 is based on data for 15- to 24-year-olds only.

NOTE: Some data different from previously published figures.

SOURCE: R. Kominiski, "Estimating the High School Dropout Rate," *Demography*, Vol. 27, No. 2, May 1990; U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years, and unpublished tabulations; U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1989*, September 1990.

Indicator 1:3

Table 1:3-2 Standard errors for estimated percentages in table 1:3-1

		White		Black		Hispanic[2]
Year[1]	Total	Male	Female	Male	Female	Both sexes[3]
1970	0.3	0.4	0.4	1.6	1.5	—
1971	0.3	0.4	0.4	1.6	1.3	—
1972	0.3	0.4	0.4	1.6	1.3	—
1973	0.3	0.4	0.4	1.6	1.5	2.1
1974	0.3	0.4	0.4	1.5	1.5	2.1
1975	0.3	0.4	0.4	1.5	1.3	1.9
1976	0.3	0.4	0.4	1.3	1.3	1.8
1977	0.3	0.4	0.4	1.3	1.3	1.8
1978	0.3	0.4	0.4	1.3	1.3	1.9
1979	0.3	0.4	0.4	1.3	1.3	1.9
1980	0.3	0.4	0.4	1.3	1.3	1.9
1981	0.3	0.4	0.4	1.3	1.3	1.9
1982	0.3	0.4	0.4	1.3	1.3	1.8
1983	0.3	0.4	0.4	1.5	1.3	1.9
1984	0.3	0.4	0.4	1.3	1.2	1.9
1985	0.3	0.4	0.4	1.3	1.2	1.9
1986	0.3	0.4	0.4	1.3	1.2	1.6
1987	0.3	0.4	0.4	1.2	1.2	1.5
1988[4]	0.3	0.4	0.4	1.2	1.2	1.5

— Not available.

[1] The year represents the middle of the 3 years over which rates are averaged. Thus the rate for 1988 is the average of the single-year rates for 12-month periods ending 1987, 1988, and 1989.

[2] Hispanics may be of any race.

[3] Sample size is too small to calculate reliable estimates by sex.

[4] The 3-year average for 1988 is based on data for 15- to 24-year olds only. The other years are based on 14- to 24-year-olds.

SOURCE: R. Kominiski, "Estimating the High School Dropout Rate," *Demography*, Vol. 27, No. 2, May 1990; U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years, and unpublished tabulations; U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States: 1989*, September 1990.

Table 1:4-1 Completion rates for students 18–29 years old: 1974–1989

Year	Age 18	Age 19	Age 20	Age 21	Age 22	Age 23
1974	68.1	79.1	82.2	84.4	84.6	84.5
1975	67.9	79.9	82.2	82.6	84.6	85.9
1976	65.4	80.8	81.4	83.7	84.4	83.8
1977	66.9	79.4	83.4	82.5	83.4	84.8
1978	68.3	78.8	83.0	82.9	83.5	84.1
1979	66.2	79.7	81.1	83.1	83.8	84.7
1980	66.7	80.8	81.3	84.6	84.4	83.7
1981	66.8	78.7	82.7	83.4	84.2	83.7
1982	66.0	78.1	82.9	82.8	84.0	85.1
1983	65.0	80.7	81.6	83.5	83.7	82.6
1984	66.7	79.9	83.9	84.2	85.1	84.9
1985	67.5	81.5	84.7	85.2	84.4	85.5
1986	66.7	82.9	84.6	83.4	85.4	84.5
1987	66.5	81.2	84.5	84.5	83.9	84.9
1988	63.9	79.8	84.4	84.5	83.7	86.5
1989	61.9	81.1	82.5	83.3	87.0	84.4

Year	Age 24	Age 25	Age 26	Age 27	Age 28	Age 29
1974	84.1	85.6	83.4	84.8	82.1	81.2
1975	84.5	84.2	85.5	84.0	85.1	81.8
1976	85.5	85.7	83.8	86.1	83.6	83.0
1977	84.6	86.2	85.1	85.3	87.0	83.3
1978	85.1	85.1	84.9	86.8	85.0	86.9
1979	83.3	85.7	85.7	86.3	86.3	85.6
1980	84.9	83.0	86.0	86.5	86.7	86.4
1981	84.8	83.9	85.7	86.7	85.6	87.7
1982	85.5	84.1	84.9	86.9	87.2	88.0
1983	85.1	86.3	85.7	85.4	86.6	87.1
1984	84.8	85.6	85.4	87.3	85.6	86.8
1985	86.6	85.3	85.8	85.2	86.3	85.7
1986	86.2	85.5	85.3	86.2	85.8	86.0
1987	84.6	84.8	85.0	85.5	85.5	87.3
1988	85.3	85.6	86.2	85.3	84.8	87.3
1989	86.5	85.5	86.6	86.7	86.3	86.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment...," various years.

Indicator 1:4

Table 1:4-2 Standard errors for estimated percentages in text table for indicator 1:4

				Age group - Race/ethnicity								
	All races			19- to 20-year-olds			24- to 25-year-olds			28- to 29-year-olds		
Year	Age 19	Age 24	Age 29	White	Black	Hispanic*	White	Black	Hispanic*	White	Black	Hispanic*
1974	0.9	0.8	1.1	0.7	2.4	3.5	0.6	2.4	4.0	0.7	2.9	4.6
1975	0.8	0.7	1.0	0.7	2.2	3.5	0.6	2.5	3.8	0.6	2.8	4.1
1976	0.8	0.7	0.8	0.6	2.2	3.4	0.6	2.4	3.7	0.6	2.5	3.8
1977	0.8	0.7	0.8	0.6	2.2	3.3	0.6	2.3	3.7	0.6	2.3	3.9
1978	0.8	0.7	0.7	0.6	2.2	3.4	0.6	2.2	3.5	0.6	2.3	3.7
1979	0.8	0.7	0.7	0.7	2.2	3.3	0.6	2.2	3.5	0.6	2.2	3.5
1980	0.8	0.6	0.6	0.6	2.1	3.0	0.6	2.2	3.2	0.6	2.2	3.3
1981	0.9	0.6	0.6	0.6	2.1	3.0	0.6	2.0	3.0	0.5	2.1	3.1
1982	0.9	0.6	0.6	0.7	2.3	3.3	0.6	2.1	3.3	0.6	2.1	3.5
1983	0.8	0.6	0.6	0.7	2.2	3.2	0.6	2.1	3.3	0.6	2.0	3.3
1984	0.9	0.6	0.6	0.7	2.1	3.4	0.6	2.1	3.2	0.6	2.1	3.2
1985	0.8	0.6	0.6	0.7	2.2	3.2	0.6	2.1	2.8	0.6	1.8	3.0
1986	0.8	0.6	0.6	0.7	2.2	3.0	0.6	1.8	2.8	0.6	1.9	3.0
1987	0.9	0.6	0.5	0.7	2.1	2.9	0.6	1.8	2.8	0.6	1.8	2.8
1988	0.9	0.6	0.5	0.8	2.5	3.3	0.7	1.8	2.9	0.6	2.0	3.0
1989	0.8	0.6	0.5	0.8	2.3	3.2	0.6	1.9	3.0	0.6	2.1	3.2

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment...," various years.

Table 1:4-3 Standard errors for estimated percentages in table 1:4-1

Year	Age 18	Age 19	Age 20	Age 21	Age 22	Age 23
1974	1.1	0.9	0.8	0.7	0.8	0.8
1975	1.1	0.8	0.8	0.7	0.7	0.7
1976	1.1	0.8	0.8	0.7	0.8	0.8
1977	1.1	0.8	0.7	0.7	0.7	0.7
1978	1.0	0.8	0.7	0.7	0.7	0.7
1979	1.1	0.8	0.8	0.7	0.7	0.7
1980	1.1	0.8	0.7	0.7	0.7	0.7
1981	1.0	0.9	0.7	0.7	0.7	0.7
1982	1.1	0.9	0.7	0.7	0.6	0.6
1983	1.1	0.8	0.7	0.7	0.7	0.7
1984	1.2	0.9	0.7	0.7	0.6	0.6
1985	1.2	0.8	0.7	0.7	0.6	0.6
1986	1.2	0.8	0.7	0.7	0.6	0.6
1987	1.2	0.9	0.7	0.8	0.7	0.6
1988	1.2	0.9	0.8	0.7	0.8	0.6
1989	1.3	0.8	0.8	0.8	0.7	0.7

Year	Age 24	Age 25	Age 26	Age 27	Age 28	Age 29
1974	0.8	0.7	0.8	0.7	1.0	1.1
1975	0.7	1.8	0.8	0.8	0.7	1.0
1976	0.7	0.7	0.8	0.7	0.8	0.8
1977	0.7	0.6	0.7	0.7	0.7	0.8
1978	0.7	0.7	0.7	0.6	0.8	0.7
1979	0.7	0.7	0.7	0.7	0.7	0.7
1980	0.6	0.7	0.7	0.6	0.6	0.6
1981	0.6	0.7	0.7	0.6	0.6	0.6
1982	0.6	0.9	0.6	0.6	0.5	0.6
1983	0.6	0.6	0.6	0.6	0.6	0.6
1984	0.6	0.6	0.6	0.5	0.6	0.6
1985	0.6	0.6	0.6	0.6	0.5	0.6
1986	0.6	0.6	0.6	0.6	0.6	0.6
1987	0.6	0.6	0.6	0.6	0.6	0.5
1988	0.6	0.6	0.6	0.6	0.6	0.5
1989	0.6	0.6	0.6	0.6	0.5	0.5

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment...." various years.

Indicator 1:5

Table 1:5-1 Percent of students at or above the five levels of reading proficiency, by age: 1971–1988

Reading levels	Year	Age 9	Age 13	Age 17
Rudimentary (Level 150)	1971	* 90.5	99.8	99.6
	1975	93.2	99.7	99.7
	1980	94.6	99.9	99.8
	1984	92.5	99.8	100.0
	1988	93.0	99.8	100.0
Basic (Level 200)	1971	* 58.2	* 92.8	95.9
	1975	62.2	* 93.3	96.4
	1980	* 67.6	94.9	97.2
	1984	61.9	94.1	98.3
	1988	62.5	95.1	98.9
Intermediate (Level 250)	1971	15.3	57.9	* 78.5
	1975	14.6	58.6	* 80.4
	1980	17.2	60.9	* 81.0
	1984	17.0	59.1	* 83.1
	1988	17.0	58.0	86.2
Adept (Level 300)	1971	1.0	9.8	39.2
	1975	0.5	10.3	39.1
	1980	0.6	11.3	38.5
	1984	1.0	10.9	40.0
	1988	1.2	10.6	41.8
Advanced (Level 350)	1971	0.0	0.1	* 6.6
	1975	0.0	0.2	* 6.1
	1980	0.0	0.2	5.3
	1984	0.0	0.2	5.5
	1988	0.0	0.2	4.8

* Shows statistically significant difference from 1988, where $\alpha = .05$ per set of four comparisons (each year compared with 1988). No significance test is reported when the percentage of students is > 95 or < 5.

SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971–88: Trends from the Nation's Report Card*, 1990.

Table 1:5-2 Standard errors for estimated average reading proficiency in text table for indicator 1:5

	Age 9				Age 13				Age 17			
	All races	White	Black	Hispanic	All races	White	Black	Hispanic	All races	White	Black	Hispanic
1971	1.0	1.0	1.6	—	0.9	0.8	1.1	—	1.2	1.0	1.7	—
1975	0.7	0.7	1.1	2.3	0.8	0.7	1.2	3.4	0.8	0.6	1.9	3.6
1980	1.1	0.9	1.6	3.3	0.9	0.6	1.5	2.1	1.4	1.2	2.0	3.3
1984	1.0	0.8	1.2	1.6	0.7	0.6	1.2	1.6	0.9	0.7	1.2	1.9
1988	1.2	1.5	2.6	3.9	0.9	1.0	2.3	3.5	1.1	1.3	2.6	4.0

SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971–88: Trends from the Nation's Report Card*, 1990.

Indicator 1:5

Table 1:5-3 Standard errors for estimated percentages in table 1:5-1

Reading levels	Year	Age 9	Age 13	Age 17
Rudimentary (Level 150)	1971	0.5	0.0	(*)
	1975	0.3	0.0	(*)
	1980	0.4	0.0	(*)
	1984	0.4	0.0	(*)
	1988	0.6	0.1	(*)
Basic (Level 200)	1971	0.9	0.4	0.3
	1975	0.8	0.4	0.3
	1980	0.9	0.4	0.4
	1984	1.0	0.3	0.1
	1988	1.2	0.5	0.2
Intermediate (Level 250)	1971	0.5	1.1	0.9
	1975	0.5	1.0	0.7
	1980	0.8	1.0	1.0
	1984	0.6	0.7	0.7
	1988	0.9	1.1	0.7
Adept (Level 300)	1971	0.1	0.5	1.0
	1975	0.1	0.4	0.6
	1980	0.1	0.4	1.5
	1984	0.1	0.4	0.9
	1988	0.2	0.7	1.3
Advanced (Level 350)	1971	(*)	(*)	0.4
	1975	(*)	(*)	0.2
	1980	(*)	(*)	0.4
	1984	(*)	(*)	0.2
	1988	(*)	(*)	0.4

* Virtually all 17-year-olds demonstrated proficiency at or above level 150. Virtually no 9- or 13-year-olds demonstrated reading proficiency at level 350.

SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971–88: Trends from the Nation's Report Card*, 1990.

Indicator 1:6

Table 1:6-1 Trends in average writing proficiency by region and grade: 1984 and 1988

Year	Northeast	Southeast	Central	West
		Grade 4		
1984	179.1	168.7	* 169.4	166.8
1988	174.8	171.3	178.2	169.8
		Grade 8		
1984	* 219.5	211.8	208.6	210.5
1988	209.3	209.7	204.3	209.6
		Grade 11		
1984	226.3	222.1	225.1	218.2
1988	224.5	221.3	218.8	219.1

* Shows a statistically significant difference from 1988.

SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984–1988: Findings from the Nation's Report Card*, 1990.

Indicator 1:6

Table 1:6-2 Standard errors for estimated percentages in text table for indicator 1:6

Year	Total	White	Black	Hispanic	Male	Female
			Grade 4			
1984	1.7	1.9	4.0	4.5	2.7	1.9
1988	1.3	1.6	3.1	3.6	1.9	1.6
			Grade 8			
1984	1.4	1.5	4.1	6.9	2.4	1.5
1988	0.8	1.0	2.3	3.2	1.4	1.1
			Grade 11			
1984	2.1	2.1	4.1	4.6	3.0	2.4
1988	1.2	1.3	2.6	3.2	1.6	1.4

SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984–1988: Findings from the Nation's Report Card*, 1990.

Table 1:6-3 Standard errors for estimated writing proficiency scores in table 1:6-1

Year	Northeast	Southeast	Central	West
		Grade 4		
1984	2.7	4.0	3.3	3.8
1988	4.0	2.6	1.9	2.9
		Grade 8		
1984	4.2	2.0	1.8	3.2
1988	1.9	2.0	2.5	2.1
		Grade 11		
1984	2.6	4.4	2.4	3.2
1988	2.9	1.6	3.1	1.9

SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984–1988: Findings From the Nation's Report Card*, 1990.

Indicator 1:7

Table 1:7-1 Average level of history proficiency in grades 4, 8, and 12, by selected characteristics: 1988

Characteristics	Grade 4	Grade 8	Grade 12
Nation	220.6	263.9	295.0
Sex			
Male	222.9	266.2	298.5
Female	218.2	261.6	291.8
Race/ethnicity			
White	227.5	270.4	301.1
Black	199.5	246.0	274.4
Hispanic	202.7	244.3	273.9
Region			
Northeast	222.6	270.1	296.9
Southeast	215.5	258.0	289.2
Central	223.8	265.3	297.9
West	220.7	262.8	295.5
Type of school			
Public	219.6	262.3	293.6
Nonpublic	237.4	276.3	305.0
Size and type of community			
Rural	220.0	266.8	296.2
Disadvantaged urban	198.2	246.2	273.8
Advantaged urban	236.9	275.9	307.8
Parents' highest level of education			
Not graduated high school	202.7	244.9	274.2
Graduated high school	214.1	256.1	285.3
Some college	228.0	269.1	296.8
Graduated college	231.4	274.9	306.0
Reading materials in the home			
0-2 items	207.7	246.6	275.0
3 items	220.2	261.3	289.3
4 items	231.1	272.0	302.0
Television watched per day			
0-2 hours	222.6	269.6	299.0
3-5 hours	225.5	265.0	293.3
6 hours or more	210.8	251.1	276.7

SOURCE: National Assessment of Educational Progress, *The U.S. History Report Card*, 1990.

Indicator 1:7

Table 1:7-2 Average levels of civics proficiency in grades 4, 8 and 12, by selected characteristics: 1988

Characteristics	Grade 4	Grade 8	Grade 12
Nation	214.0	259.7	296.3
Sex			
Male	214.8	258.7	298.6
Female	213.3	260.6	294.1
Race/ethnicity			
White	220.0	266.3	301.9
Black	198.1	243.6	273.8
Hispanic	199.5	240.6	279.2
Region			
Northeast	215.7	263.3	294.1
Southeast	210.2	254.0	290.9
Central	218.4	264.1	300.2
West	212.3	257.8	299.2
Type of school			
Public	212.8	258.5	295.1
Nonpublic	234.0	269.6	303.3
Size and type of community			
Advantaged urban	225.8	269.8	310.0
Disadvantaged urban	192.5	240.5	274.4
Rural	214.9	269.1	299.2
Parents' highest level of education			
Not graduated high school	207.5	237.8	273.0
Graduated high school	211.2	252.5	285.0
Some college	221.4	263.7	298.6
Graduated college	222.5	272.2	307.4
Reading materials in the home			
0-2 items	202.2	241.2	272.3
3 items	214.6	255.8	291.7
4 items	223.4	269.8	303.3

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Table 1:7-3 Percentage of students at or above levels of history proficiency, by grade and race/ethnicity: 1988

Grade and race/ethnicity	Level 200	Level 250	Level 300	Level 350
Grade 4				
White	84.8	19.8	0.3	0.0
Black	49.0	4.2	0.0	0.0
Hispanic	54.3	4.2	0.0	0.0
Grade 8				
White	97.4	75.9	15.7	0.1
Black	93.2	44.9	3.5	0.0
Hispanic	91.2	43.8	4.1	0.0
Grade 12				
White	99.6	92.7	52.8	5.5
Black	99.0	77.3	21.2	0.5
Hispanic	98.4	76.1	23.2	1.4

SOURCE: National Assessment of Educational Progress, *The History Report Card*, 1990.

Table 1:7-4 Percentage of students at or above levels of civics proficiency, by grade and race/ethnicity: 1988

Grade and race/ethnicity	Level 200	Level 250	Level 300	Level 350
Grade 4				
White	79.7	12.3	0.1	0.0
Black	49.3	2.2	0.0	0.0
Hispanic	50.8	3.8	0.0	0.0
Grade 8				
White	96.3	69.3	16.3	0.5
Black	90.5	41.2	4.0	0.0
Hispanic	88.7	41.0	3.4	0.0
Grade 12				
White	99.1	92.8	55.4	7.1
Black	97.3	76.8	23.2	1.0
Hispanic	98.0	78.6	29.5	2.5

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Table 1:7-5 Average civics proficiency for 13-year-olds, by selected characteristics: 1976, 1982, and 1988

Characteristic	1976	1982	1988
Nation	49.1	49.1	50.0
Sex			
Male	49.7	50.1	50.5
Female	48.5	*48.2	49.5
Race/ethnicity			
White	50.7	50.7	51.2
Black	*42.1	*42.0	45.7
Hispanic	*41.1	43.9	45.5
Region			
Northeast	50.1	51.2	51.2
Southeast	47.3	47.2	49.7
Central	50.9	49.3	50.3
West	47.7	48.6	48.9
Size and type of community			
Advantaged urban	55.0	54.9	52.6
Disadvantaged urban	44.0	43.9	43.8
Other	48.6	49.1	50.0
Parents' highest level of education			
Not graduated high school	43.9	43.3	45.5
Graduated high school	48.4	48.1	47.4
Some college	53.0	52.1	52.4

* Shows statistically significant difference from 1988 at the .05 level.

NOTE: The range for the trend scale (0 to 100) is different from the range for the cross-sectional scale for 1988 (0 to 500).

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Table 1:7-6 Average civics proficiency for 17-year-olds, by selected characteristics: 1976, 1982, and 1988

Characteristic	1976	1982	1988
Nation	61.7	61.3	59.6
Sex			
Male	*63.5	63.1	61.2
Female	*60.0	59.6	58.2
Race/ethnicity			
White	63.4	*63.6	61.4
Black	52.5	51.6	53.1
Hispanic	51.5	52.3	53.8
Region			
Northeast	62.9	62.3	60.8
Southeast	59.3	59.8	59.7
Central	62.3	62.8	60.1
West	*61.7	60.1	58.1
Size and type of community			
Advantaged urban	66.1	69.4	62.3
Disadvantaged urban	56.3	52.7	50.0
Other	61.7	61.6	59.2
Parents' highest level of education			
Not graduated high school	*55.4	53.7	52.8
Graduated high school	*59.8	59.3	55.6
Some college	*65.9	65.4	62.5

* Shows statistically significant difference from 1988 at the .05 level.

NOTE: The range for the trend scale (0 to 100) is different from the range for the cross-sectional scale for 1988 (0 to 500).

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Table 1:7-7 Standard errors for the estimated average scale scores in table 1:7-1

Characteristic	Grade 4	Grade 8	Grade 12
Nation	0.9	0.7	1.0
Sex			
Male	1.2	1.0	1.3
Female	1.0	0.8	1.1
Race/ethnicity			
White	1.0	0.8	1.2
Black	1.9	1.5	1.7
Hispanic	1.7	1.9	1.8
Region			
Northeast	2.2	1.5	2.5
Southeast	2.1	1.8	1.5
Central	1.5	1.7	1.8
West	1.9	1.5	1.7
Type of school			
Public	0.9	0.9	1.1
Nonpublic	4.0	3.7	4.9
Size and type of community			
Rural	2.6	3.4	3.8
Disadvantaged urban	2.2	2.1	3.2
Advantaged urban	2.6	2.0	3.0
Parents' highest level of education			
Not graduated high school	2.2	1.7	2.0
Graduated high school	1.3	1.2	1.1
Some college	2.4	1.1	1.1
Graduated college	1.5	0.9	1.6
Reading materials in the home			
0-2 items	1.2	1.3	1.5
3 items	1.1	1.1	1.4
4 items	1.1	0.8	1.2
Television watched per day			
0-2 hours	1.3	1.1	1.4
3-5 hours	1.2	0.8	1.0
6 hours or more	1.3	1.6	1.9

SOURCE: National Assessment of Educational Progress, *The History Report Card*, 1990.

Table 1:7-8 Standard errors for the estimated scale scores in table 1:7-2

Characteristics	Grade 4	Grade 8	Grade 12
Nation	0.9	0.9	1.1
Sex			
Male	1.3	1.1	1.6
Female	1.1	0.9	1.1
Race/ethnicity			
White	1.0	1.2	1.2
Black	2.2	1.9	1.9
Hispanic	1.9	1.7	2.3
Region			
Northeast	1.9	2.0	2.4
Southeast	2.0	1.7	1.8
Central	2.3	2.1	1.8
West	1.5	1.4	2.5
Type of school			
Public	0.9	0.9	0.9
Nonpublic	6.9	4.1	4.1
Size and type of community			
Advantaged urban	2.1	4.2	2.8
Disadvantaged urban	2.3	2.8	2.8
Rural	4.5	3.0	3.9
Parents' highest level of education			
Not graduated high school	3.5	2.2	2.5
Graduated high school	1.8	1.3	1.6
Some college	2.8	1.3	1.4
Graduated college	1.3	1.1	1.5
Reading materials in the home			
0-2 items	1.5	1.5	2.2
3 items	1.4	1.2	1.5
4 items	1.2	1.0	1.1

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Table 1:7-9 Standard errors for estimated percentages in table 1:7-3

Grade and race/ethnicity	Level 200	Level 250	Level 300	Level 350
Grade 4				
White	1.0	1.2	0.1	0.0
Black	2.9	0.8	0.0	0.0
Hispanic	2.0	1.0	0.0	0.0
Grade 8				
White	0.4	1.0	0.6	0.1
Black	1.1	1.9	0.7	0.0
Hispanic	1.3	2.5	0.8	0.0
Grade 12				
White	0.1	0.7	1.5	0.6
Black	0.4	1.5	1.7	0.2
Hispanic	0.5	2.0	1.9	0.5

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Table 1:7-10 Standard errors for estimated percentages in table 1:7-4

Grade and race/ethnicity	Level 200	Level 250	Level 300	Level 350
Grade 4				
White	1.3	1.1	0.1	0.0
Black	3.4	0.8	0.0	0.0
Hispanic	2.8	1.2	0.0	0.0
Grade 8				
White	0.5	1.4	1.0	0.1
Black	1.4	2.6	0.7	0.0
Hispanic	1.4	2.3	0.9	0.0
Grade 12				
White	0.2	0.7	1.3	0.7
Black	0.7	2.1	1.8	0.5
Hispanic	0.8	2.0	2.9	0.7

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Table 1:7-11 Standard errors for estimated percentages in table 1:7-5

Characteristic	1976	1982	1988
Nation	0.2	0.4	0.4
Sex			
Male	0.2	0.4	0.6
Female	0.3	0.4	0.4
Race/ethnicity			
White	0.2	0.3	0.5
Black	0.3	0.4	0.6
Hispanic	0.6	0.5	1.8
Region			
Northeast	0.4	0.7	0.6
Southeast	0.6	0.6	1.4
Central	0.4	0.8	0.8
West	0.5	0.6	0.9
Size and type of community			
Advantaged urban	0.5	0.6	1.5
Disadvantaged urban	0.9	1.1	0.9
Other	0.2	0.3	0.6
Parents' highest level of education			
Not graduated high school	0.3	0.5	1.1
Graduated high school	0.3	0.3	0.5
Some college	0.3	0.4	0.5

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Indicator 1:7

Table 1:7-12 Standard errors for estimated percentages in table 1:7-6

Characteristic	1976	1982	1988
Nation	0.3	0.5	0.5
Sex			
Male	0.3	0.6	0.7
Female	0.3	0.5	0.6
Race/ethnicity			
White	0.3	0.4	0.6
Black	0.5	0.5	1.0
Hispanic	0.8	1.2	1.7
Region			
Northeast	0.5	0.9	1.2
Southeast	0.4	1.0	0.7
Central	0.4	0.7	1.4
West	0.6	1.0	1.1
Size and type of community			
Advantaged urban	0.8	0.7	0.9
Disadvantaged urban	1.1	0.8	2.2
Other	0.2	0.5	0.6
Parents' highest level of education			
Not graduated high school	0.4	0.6	1.1
Graduated high school	0.3	0.5	0.8
Some college	0.3	0.5	0.6

SOURCE: National Assessment of Educational Progress, *The Civics Report Card*, 1990.

Indicator 1:8

Table 1:8-1 Percentage of 13-year-old students in six countries performing at or above each level of the mathematics proficiency scale: 1988

Country/province	300 (Add and subtract)	400 (Simple problems)	500 (Two-step problems)	600 (Complex concepts)	700 (Advanced concepts)
Korea	100	95	78	40	5
Quebec (French)	100	97	73	22	2
British Columbia	100	95	70	24	2
Quebec (English)	100	97	67	20	1
New Brunswick (English)	100	96	65	18	1
Ontario (English)	99	92	58	16	1
New Brunswick (French)	100	95	58	12	*
Spain	99	91	57	14	1
United Kingdom	99	87	56	18	3
Ireland	98	86	55	14	*
Ontario (French)	99	85	41	7	*
United States	97	78	40	9	1

* Less than 0.5 percent.

SOURCE: International Assessment of Educational Progress, *A World of Differences: International Assessment of Mathematics and Science*, 1989.

Table 1:8-2 Standard errors for estimated percentages in table 1:8-1

Country/province	300 (Add and subtract)	400 (Simple problems)	500 (Two-step problems)	600 (Complex concepts)	700 (Advanced concepts)
Korea	0.1	0.5	1.1	1.3	0.5
Quebec (French)	0.1	0.4	1.8	1.3	0.3
British Columbia	0.1	0.6	1.2	1.1	0.3
Quebec (English)	0.1	0.4	1.2	1.0	0.2
New Brunswick (English)	0.1	0.6	1.4	1.1	0.3
Ontario (English)	0.2	0.7	1.5	1.3	0.4
New Brunswick (French)	0.2	0.7	1.9	1.2	0.2
Spain	0.2	1.0	2.4	1.8	0.4
United Kingdom	0.3	1.0	1.7	1.2	0.4
Ireland	0.6	0.9	1.7	1.0	0.2
Ontario (French)	0.3	1.1	1.5	0.7	<0.1
United States	0.7	2.1	2.2	1.0	0.4

SOURCE: International Assessment of Educational Progress, *A World of Differences: International Assessment of Mathematics and Science*, 1989.

Indicator 1:8

Table 1:8-3 Percentage of 13-year-old students in six countries performing at or above each level of the science proficiency scale: 1988

Country/province	300 (Know everyday facts)	400 (Apply simple principles)	500 (Analyze experiments)	600 (Apply intermediate principles)	700 (Integrate experimental evidence)
British Columbia	100	95	72	31	4
Korea	100	93	73	33	2
United Kingdom	99	89	59	21	2
Quebec (English)	100	92	57	15	2
Ontario (English)	99	91	56	17	2
Quebec (French)	100	92	56	15	1
New Brunswick (English)	99	90	55	15	1
Spain	99	88	54	12	1
United States	96	78	42	12	1
Ireland	96	76	37	9	1
Ontario (French)	98	79	35	6	*
New Brunswick (French)	98	78	35	7	*

* Less than 0.5 percent.

SOURCE: International Assessment of Educational Progress, *A World of Differences: International Assessment of Mathematics and Science*, 1989.

Table 1:8-4 Standard errors for estimated percentages in table 1:8-3

Country	300 (Know everyday facts)	400 (Apply simple principles)	500 (Analyze experiments)	600 (Apply intermediate principles)	700 (Integrate experimental evidence)
British Columbia	0.1	0.5	1.1	1.0	0.4
Korea	0.2	0.7	1.4	0.4	0.4
United Kingdom	0.3	1.0	1.8	1.4	0.4
Quebec (English)	0.2	0.7	1.7	0.8	0.3
Ontario (English)	0.3	0.9	1.3	1.1	0.3
Quebec (French)	0.1	0.9	1.7	1.3	0.2
New Brunswick (English)	0.2	0.7	1.5	0.9	0.3
Spain	0.2	1.1	2.3	1.3	0.2
United States	0.8	1.9	2.6	1.1	0.4
Ireland	0.9	1.1	1.6	0.9	0.2
Ontario (French)	0.4	0.8	1.1	0.6	0.1
New Brunswick (French)	0.4	1.6	1.7	0.8	0.2

SOURCE: International Assessment of Educational Progress, *A World of Differences: International Assessment of Mathematics and Science*, 1989.

Indicator 1:9

Table 1:9-1 Scholastic Aptitude Test (SAT) scores: School years ending 1963–1990

Year*	Total	Verbal	Math
		Average test score	
1963	980	478	502
1964	973	475	498
1965	969	473	496
1966	967	471	496
1967	958	466	492
1968	958	466	492
1969	956	463	493
1970	948	460	488
1971	943	455	488
1972	937	453	484
1973	926	445	481
1974	924	444	480
1975	906	434	472
1976	903	431	472
1977	899	429	470
1978	897	429	468
1979	894	427	467
1980	890	424	466
1981	890	424	466
1982	893	426	467
1983	893	425	468
1984	897	426	471
1985	906	431	475
1986	906	431	475
1987	906	430	476
1988	904	428	476
1989	903	427	476
1990	900	424	476

*Averages for 1972 through 1990 are based on college-bound seniors. Averages for 1963 through 1971 are estimates provided by the College Board; background information needed for specific identification of college-bound seniors was not collected before 1972.

SOURCES: College Entrance Examination Board, *National Report: College-Bound Seniors*, various years (copyright by College Entrance Examination Board, all rights reserved).

Table 1:9-2 American College Testing (ACT) scores: School years ending 1970–1989

Year	Composite	English	Mathematics	Social studies	Natural sciences
			Average test score		
1970	19.9	18.5	20.0	19.7	20.8
1971	19.2	18.0	19.1	18.7	20.5
1972	19.1	17.9	18.8	18.6	20.6
1973	19.2	18.1	19.1	18.3	20.8
1974	18.9	17.9	18.3	18.1	20.8
1975	18.6	17.7	17.6	17.4	21.1
1976	18.3	17.5	17.5	17.0	20.8
1977	18.4	17.7	17.4	17.3	20.9
1978	18.5	17.9	17.5	17.1	20.9
1979	18.6	17.9	17.5	17.2	21.1
1980	18.5	17.9	17.4	17.2	21.1
1981	18.5	17.8	17.3	17.2	21.0
1982	18.4	17.9	17.2	17.3	20.8
1983	18.3	17.8	16.9	17.1	20.9
1984	18.5	18.1	17.3	17.3	21.0
1985	18.6	18.1	17.2	17.4	21.2
1986	18.8	18.5	17.3	17.6	21.4
1987	18.7	18.4	17.2	17.5	21.4
1988	18.8	18.5	17.2	17.4	21.4
1989	18.6	18.5	17.2	17.4	21.4

NOTE: ACT scores from 1970 to 1989 are results from the original ACT. Consequently, they cannot be compared with the 1990 enhanced ACT results.

SOURCE: The American College Testing Program, *The High School Profile Report*, Normative Data, various years.

Table 1:9-3 Percent of high school graduates taking the SAT and ACT: 1973–1990

Year	Number of SAT examinees	Number of ACT examinees	Number of high school graduates[1]	Percent taking SAT	Percent taking ACT
1973	1,014,862	—	3,036,000	33.4	—
1974	985,247	—	3,073,000	32.1	—
1975	996,452	—	3,133,000	31.8	—
1976	999,829	—	3,148,000	31.8	—
1977	979,467	—	3,155,000	31.0	—
1978	989,307	—	3,127,000	31.6	—
1979	991,765	—	3,117,000	31.8	—
1980	991,514	—	3,043,000	32.6	—
1981	994,333	—	3,020,000	32.9	—
1982	988,680	—	2,995,000	33.0	—
1983	963,209	—	2,888,000	33.4	—
1984	964,684	—	2,767,000	34.9	—
1985	977,361	—	2,677,000	36.5	—
1986[2]	1,000,748	729,606	2,643,000	37.9	27.6
1987[2]	1,080,426	777,424	2,694,000	40.1	28.9
1988[2]	1,134,364	842,322	2,801,000	40.5	30.1
1989[3]	1,088,223	855,171	2,787,000	39.0	30.7
1990[3]	1,025,523	817,096	2,665,000	38.5	30.7

— Not applicable.

[1] Includes graduates of public and private schools.

[2] Data for high school graduates have been revised from previously published figures.

[3] Estimated data for the number of high school graduates.

NOTE: Background information needed for specific identification of college-bound seniors was not collected before 1972 for the SAT. Information for the 1972 graduates is not included because in that year the Student Descriptive Questionnaire was administered while these students were in their last year of high school. Those who took the tests earlier than their senior year had no opportunity to complete the questionnaire. Additionally, the response rate was low (56 percent), and those data were probably not representative of the total test-taking population.

SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors*, various years (copyright by College Entrance Examination Board, all rights reserved); American College Testing, *The High School Profile Report, Normative Data*, 1990; U.S. Department of Education, National Center for Education Statistics, Common Core of Data survey.

Indicator 1:9

Table 1:9-4 SAT average scores by race/ethnicity and by sex

Sex and race/ethnicity	1990	Change from 1976[1]	Change from 1989
		Verbal	
Total	424	-7	-3
Sex			
Men	429	-4	-5
Women	419	-11	-2
Race/ethnicity			
American Indian	388	0	4
Asian American	410	-4	1
Black	352	20	1
Mexican American	380	9	1
Puerto Rican	359	-5	1
Other Hispanic	383	([2])	-6
White	442	-9	-4
Other	410	0	-4
		Mathematics	
Total	467	4	0
Sex			
Men	499	2	-1
Women	455	9	1
Race/ethnicity			
American Indian	437	17	9
Asian American	528	10	3
Black	385	31	-1
Mexican American	429	19	-1
Puerto Rican	405	4	-1
Other Hispanic	434	([2])	-2
White	491	-2	0
Other	467	9	0

[1] The first year for which SAT scores by ethnic group are available is 1976.

[2] The Student Descriptive Questionnaire question on background was changed for 1987 to include the "Other Hispanic" category.

SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors: 1990 Profile of SAT and Achievement Test Takers*, 1990, (copyright by College Entrance Examination Board, all rights reserved).

Table 1:9-5 Minority group performance on the ACT by selected characteristics

Group	Percent taking core program		Scores by core program[1]		Average score		Five-year change
	1987	1990	Core or more	Less than core	1986	1990	
Black	30	42	18.2	16.1	16.2[2]	17.0	0.8
American Indian/ Alaskan native	24	35	19.9	17.1	17.3[2]	18.0	0.7
Mexican-American/ Chicano	31	43	19.9	17.2	17.9[2]	18.3	0.4
Asian American/ Pacific Islander	51	61	22.8	20.0	21.6[2]	21.7	0.1
Puerto Rican/ Cuban/ Other Hispanic origin	42	49	20.9	17.6	19.0[2]	19.3	0.3

[1] The "core program" is defined by ACT as 4 or more years of English, 3 or more years of mathematics, 3 or more years of social science, and 3 years or more of natural science.

[2] Because the 1990 ACT is significantly different from last year's program, it is not possible to make direct comparisons between 1990 results and scores earned in previous years. To permit continuity in tracking of score trends, ACT has established links between scores earned on ACT tests administered before October 1989 and scores on the new ACT.

SOURCE: The American College Testing Program, *ACT News*, 1990.

Indicator 1:10

Table 1:10-1 Rates of labor force participation, employment, and unemployment of recent high school *graduates*, by sex: 1960–1989

Year	Both sexes			Male			Female		
	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	76.7	65.0	15.2	88.5	75.3	14.9	69.5	58.8	15.3
1961	79.7	65.4	17.9	86.1	70.1	18.5	75.8	62.5	17.6
1962	79.5	68.3	14.1	90.8	77.8	14.3	71.4	61.5	13.8
1963	78.9	64.7	18.0	89.7	72.6	19.1	71.8	59.5	17.1
1964	77.9	63.4	18.7	90.9	79.2	12.9	69.8	53.5	23.4
1965	82.1	71.9	12.4	91.0	84.3	7.4	75.8	63.2	16.6
1966	75.7	64.9	14.2	87.3	79.7	8.7	68.4	55.8	18.5
1967	78.7	65.9	16.2	86.6	78.3	9.5	73.5	57.7	21.4
1968	77.8	67.3	13.5	88.1	79.1	10.2	71.6	60.2	16.0
1969	79.1	70.1	11.4	90.0	83.1	7.6	71.6	61.1	14.7
1970	77.2	63.2	18.1	87.4	76.1	12.9	68.8	52.6	23.6
1971	78.7	65.1	17.2	90.0	77.5	13.9	69.9	55.6	20.5
1972	82.3	70.1	14.7	91.2	80.1	12.2	74.9	62.1	17.1
1973	80.6	70.7	12.3	90.3	81.8	9.6	72.9	61.9	15.1
1974	83.3	69.1	17.0	89.8	76.0	15.4	77.5	63.1	18.6
1975	81.3	65.1	19.9	91.5	74.1	19.1	72.6	57.5	20.8
1976	84.0	68.9	18.1	91.3	75.9	16.8	76.8	61.7	19.6
1977	85.3	71.9	15.7	90.8	77.7	14.4	80.9	67.1	17.0
1978	86.2	74.0	14.1	91.8	81.4	11.1	81.3	67.5	17.0
1979	86.7	72.4	16.5	92.0	79.1	14.0	82.3	66.7	18.9
1980	85.0	68.9	19.0	89.7	72.6	19.1	80.1	65.8	18.8
1981	83.9	65.9	21.4	86.9	70.0	19.5	81.0	62.1	23.4
1982	82.0	60.4	26.3	85.8	64.9	24.4	78.2	56.0	28.5
1983	84.5	62.9	25.5	88.8	66.1	25.6	80.5	60.0	25.4
1984	83.0	64.0	22.9	89.7	69.0	23.0	77.1	59.6	22.7
1985	82.3	62.0	24.6	86.1	65.0	24.5	78.8	59.3	24.7
1986	81.4	65.2	19.9	86.2	69.5	19.4	77.3	61.6	20.3
1987	83.8	68.9	17.8	89.1	76.9	13.7	79.2	61.8	21.9
1988	84.7	71.9	15.1	88.5	74.1	16.2	80.6	69.4	13.7
1989	84.4	71.9	14.7	89.3	77.8	12.9	79.1	65.7	16.9

NOTE: The labor force participation rate is the percent of the population either employed or unemployed. Those not in the labor force are neither employed nor looking for work. The employment rate is the percent of the population employed. The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. See supplemental note 1:11 for a comparison of these labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Table 1:10-2 Rates of labor force participation, employment, and unemployment of recent high school *dropouts*, by sex: 1960–1989

Year	Both sexes			Male			Female		
	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	62.2	50.9	18.2	76.4	61.8	19.0	49.2	40.8	17.0
1961	67.5	49.4	26.8	83.8	60.3	28.0	50.9	38.3	24.7
1962	56.5	40.4	28.6	84.9	61.9	27.1	34.0	23.3	31.5
1963	65.9	45.1	31.7	83.3	64.4	22.7	49.6	27.0	45.7
1964	55.3	41.6	24.8	76.6	63.0	17.7	37.8	24.0	36.5
1965	61.0	47.9	21.4	82.8	66.8	19.4	36.4	26.8	26.5
1966	62.3	51.4	17.4	80.3	69.4	13.6	44.4	33.6	24.4
1967	63.7	50.3	21.0	80.3	65.0	19.1	45.6	34.4	24.6
1968	63.9	50.0	21.8	80.3	65.5	18.5	47.0	34.0	27.7
1969	61.3	51.0	16.8	81.8	69.8	14.7	39.4	30.9	21.4
1970	60.0	44.7	25.5	78.9	56.5	28.4	39.5	31.9	19.3
1971	63.6	46.8	26.4	81.1	59.3	26.5	42.9	31.7	26.2
1972	62.7	46.0	26.5	82.3	63.2	23.2	42.3	28.5	32.7
1973	66.2	51.5	22.2	81.1	61.5	24.2	47.1	38.7	18.4
1974	67.0	48.1	28.3	82.4	62.2	24.6	48.8	31.2	36.1
1975	62.7	41.4	34.0	82.4	54.1	34.3	43.4	29.0	33.3
1976	62.9	43.5	30.8	77.6	55.7	28.2	44.1	28.0	36.6
1977	68.5	50.2	26.7	81.0	60.9	24.8	54.0	38.0	29.5
1978	68.7	49.7	27.6	80.2	61.0	24.0	53.3	34.7	34.4
1979	66.0	48.8	25.9	79.0	64.0	19.0	53.4	34.0	36.4
1980	63.9	43.7	31.5	72.7	50.7	30.5	52.3	34.7	33.5
1981	63.5	40.5	36.2	74.1	52.6	29.0	52.6	28.0	46.7
1982	63.0	36.8	41.6	76.6	43.4	43.4	47.6	29.4	38.3
1983	63.1	43.2	31.6	75.4	50.8	32.7	48.1	34.0	29.5
1984	64.4	42.9	33.3	77.7	51.7	33.5	49.1	32.9	33.1
1985	67.5	43.5	35.6	81.3	50.8	37.5	52.2	35.4	32.2
1986	63.9	46.1	27.9	72.0	56.0	22.2	54.6	34.7	36.4
1987	66.3	41.2	37.8	73.7	45.6	38.1	57.5	36.0	37.4
1988	59.2	43.5	26.6	74.6	53.4	28.4	40.0	31.0	22.4
1989	65.5	47.1	28.1	74.5	52.3	29.8	54.7	40.9	25.2

NOTE: See note to table 1:10-1. See supplemental note 1:11 for a comparison of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Indicator 1:10

Table 1:10-3 Rates of labor force participation, employment, and unemployment of recent high school *graduates*, by race/ethnicity: 1960–1989

	White			Black			Hispanic[1]		
Year	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	77.0	67.0	13.0	—	—	—	—	—	—
1961	80.0	67.0	16.3	—	—	—	—	—	—
1962	80.1	69.3	13.5	—	—	—	—	—	—
1963	78.5	66.0	15.9	—	—	—	—	—	—
1964	77.5	64.6	16.7	—	—	—	—	—	—
1965	82.4	73.5	21.2	—	—	—	—	—	—
1966	77.0	67.1	12.9	—	—	—	—	—	—
1967	79.5	68.4	14.0	—	—	—	—	—	—
1968	77.6	68.5	11.7	—	—	—	—	—	—
1969	80.2	73.4	8.3	—	—	—	—	—	—
1970	78.3	65.6	16.3	—	—	—	—	—	—
1971	79.3	67.3	15.1	—	—	—	—	—	—
1972	83.0	72.9	12.2	—	—	—	—	—	—
1973	82.4	74.1	10.1	—	—	—	—	—	—
1974	84.4	72.1	14.6	—	—	—	—	—	—
1975	82.5	68.5	17.1	—	—	—	—	—	—
1976	85.8	72.9	15.0	—	—	—	—	—	—
1977	86.7	75.4	13.0	74.6	43.2	42.1	—	—	—
1978	87.7	78.5	10.4	75.9	45.5	40.0	—	—	—
1979	88.3	76.0	13.9	72.3	43.5	39.1	—	—	—
1980	87.3	74.4	14.8	71.0	34.8	51.7	—	—	—
1981	86.4	71.6	17.1	69.3	32.2	53.5	(2)	(2)	(2)
1982	84.6	66.5	21.4	69.3	29.1	58.0	74.7	43.4	(2)
1983	86.4	69.8	19.2	75.9	34.9	54.1	(2)	(2)	(2)
1984	85.5	68.6	19.7	72.9	44.7	38.7	79.6	49.5	37.8
1985	83.9	68.8	18.1	76.6	34.4	55.1	(2)	(2)	(2)
1986	84.8	70.8	16.5	68.2	42.0	38.3	80.9	64.9	19.7
1987	85.6	72.8	15.0	73.5	46.9	36.1	69.2	53.8	22.2
1988	87.8	76.4	1.29	73.9	55.5	24.4	81.8	57.1	(2)
1989	87.0	75.2	13.6	71.7	55.3	23.7	74.7	49.3	(2)

— Not available.

[1] Hispanics may be of any race.

[2] Too few sample observations for a reliable estimate.

NOTE: See note to table 1:10-1. See supplemental note 1:11 for a comparison of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Table 1:10-4 Rates of labor force participation, employment, and unemployment of recent high school *dropouts*, by race/ethnicity: 1960–1989

Year	White			Black			Hispanic[1]		
	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	59.7	48.7	18.4	—	—	—	—	—	—
1961	66.8	47.3	29.1	—	—	—	—	—	—
1962	53.8	39.5	26.5	—	—	—	—	—	—
1963	69.6	46.5	33.1	—	—	—	—	—	—
1964	52.8	39.2	25.7	—	—	—	—	—	—
1965	60.4	46.8	22.6	—	—	—	—	—	—
1966	63.9	53.5	16.2	—	—	—	—	—	—
1967	63.2	50.8	19.6	—	—	—	—	—	—
1968	66.0	53.0	19.7	—	—	—	—	—	—
1969	60.9	51.4	15.5	—	—	—	—	—	—
1970	62.2	48.4	22.1	—	—	—	—	—	—
1971	65.4	49.4	24.6	—	—	—	—	—	—
1972	61.9	47.3	23.6	—	—	—	—	—	—
1973	69.5	54.8	21.2	—	—	—	—	—	—
1974	70.6	52.1	26.0	—	—	—	—	—	—
1975	63.8	46.1	27.7	—	—	—	—	—	—
1976	67.2	48.8	27.5	—	—	—	—	—	—
1977	71.4	54.6	23.7	58.0	33.1	42.9	—	—	—
1978	71.9	52.1	27.5	59.1	39.2	33.7	—	—	—
1979	68.7	52.9	22.9	53.2	29.1	45.2	—	—	—
1980	67.7	49.5	26.9	50.3	21.9	56.6	—	—	—
1981	68.6	48.7	29.0	46.4	12.5	73.1	69.2	45.1	(2)
1982	67.1	42.9	36.0	51.9	14.8	(2)	(2)	(2)	(2)
1983	63.8	47.4	25.7	57.3	25.8	(2)	67.1	45.6	(2)
1984	66.5	47.4	28.7	56.0	22.9	(2)	51.6	35.2	(2)
1985	72.1	46.7	35.2	52.3	29.5	(2)	68.9	37.7	(2)
1986	64.4	47.4	26.3	55.6	32.2	(2)	60.6	45.7	24.7
1987	68.9	46.1	33.1	60.0	26.1	(2)	(2)	(2)	(2)
1988	64.9	48.9	24.7	39.3	23.4	(2)	64.9	55.4	(2)
1989	70.4	54.3	22.8	52.7	27.7	(2)	(2)	(2)	(2)

— Not available.

[1] Hispanics may be of any race.

[2] Too few sample observations for a reliable estimate.

NOTE: See note to table 1:10-1. See supplemental note 1:11 for a comparison of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Table 1:10-5 Standard errors for estimated percentages in table 1:10-1

	Both sexes			Male			Female		
Year	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	2.6	2.9	2.5	3.2	4.3	3.8	3.6	3.8	3.4
1961	2.5	2.9	2.6	3.5	4.6	4.2	3.3	3.8	3.4
1962	2.5	2.8	2.4	2.7	3.9	3.5	3.6	3.9	3.3
1963	2.5	2.9	2.6	2.9	4.3	4.0	3.5	3.8	3.4
1964	2.3	2.7	2.5	2.6	3.7	3.2	3.3	3.6	3.6
1965	2.0	2.3	1.9	2.3	2.9	2.2	2.9	3.2	2.9
1966	2.2	2.5	2.1	2.8	3.4	2.5	3.1	3.3	3.1
1967	1.7	1.9	1.7	2.2	2.7	2.0	2.3	2.6	2.5
1968	1.7	2.0	1.6	2.2	2.8	2.2	2.4	2.6	2.3
1969	1.6	1.8	1.4	1.8	2.3	1.7	2.3	2.5	2.1
1970	1.6	1.9	1.7	1.9	2.5	2.1	2.4	2.6	2.7
1971	1.6	1.8	1.7	1.8	2.5	2.1	2.4	2.6	2.5
1972	1.4	1.7	1.4	1.5	2.2	1.9	2.1	2.4	2.1
1973	1.4	1.6	1.3	1.6	2.0	1.6	2.1	2.3	2.0
1974	1.3	1.6	1.4	1.6	2.2	2.0	2.0	2.3	2.1
1975	1.4	1.7	1.6	1.5	2.3	2.2	2.2	2.4	2.3
1976	1.3	1.7	1.5	1.4	2.2	2.0	2.2	2.5	2.3
1977	1.3	1.6	1.4	1.5	2.2	2.0	1.9	2.3	2.0
1978	1.2	1.6	1.3	1.4	2.0	1.7	1.9	2.3	2.0
1979	1.2	1.6	1.4	1.4	2.1	1.9	1.8	2.3	2.1
1980	1.3	1.7	1.5	1.5	2.2	2.1	2.0	2.4	2.2
1981	1.4	1.8	1.7	1.8	2.5	2.3	2.1	2.5	2.5
1982	1.5	1.9	1.9	1.9	2.6	2.5	2.3	2.7	2.8
1983	1.5	2.0	1.9	1.9	2.8	2.7	2.2	2.8	2.7
1984	1.6	2.0	1.9	1.8	2.8	2.7	2.4	2.8	2.7
1985	1.7	2.2	2.2	2.3	3.1	3.1	2.5	3.1	3.0
1986	1.7	2.0	1.9	2.2	2.9	2.7	2.4	2.8	2.6
1987	1.7	2.1	1.9	2.1	2.8	2.4	2.5	3.0	2.9
1988	1.7	2.1	1.8	2.0	2.8	2.5	2.6	3.1	2.5
1989	1.8	2.2	1.9	2.1	2.8	2.4	2.8	3.3	2.9

NOTE: See note to table 1:10-1. See supplemental note 1:11 for a comparison of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Table 1:10-6 Standard errors for estimated percentages in table 1:10-2

Year	Both sexes			Male			Female		
	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	4.9	5.0	4.9	6.2	7.0	6.5	7.0	6.8	7.5
1961	4.6	4.9	5.3	5.1	6.8	6.8	7.0	6.8	8.5
1962	5.5	5.4	6.6	5.9	8.1	8.0	7.0	6.2	11.8
1963	5.3	5.6	6.5	6.0	7.8	7.4	7.8	7.0	11.1
1964	3.8	3.7	4.4	4.8	5.4	4.9	4.9	4.4	8.0
1965	3.5	3.6	3.7	3.7	4.6	4.3	5.0	4.6	7.6
1966	3.7	3.8	3.7	4.3	5.0	4.2	5.4	5.1	7.0
1967	2.8	2.9	2.9	3.2	3.8	3.5	4.1	3.9	5.3
1968	2.8	2.9	3.0	3.2	3.8	3.5	4.1	3.9	5.3
1970	2.6	2.6	3.0	3.0	3.7	3.7	3.7	3.6	4.8
1971	2.7	2.8	3.1	3.0	3.7	3.7	4.0	3.8	5.5
1972	2.5	2.6	2.9	2.8	3.5	3.4	3.7	3.4	5.4
1973	2.4	2.5	2.6	2.6	3.3	3.2	3.8	3.7	4.3
1974	2.3	2.5	2.7	2.6	3.3	3.2	3.7	3.4	5.1
1975	2.5	2.6	3.1	2.8	3.7	3.9	3.6	3.3	5.3
1976	2.5	2.6	3.0	2.9	3.4	3.5	3.9	3.5	5.7
1977	2.3	2.5	2.6	2.6	3.3	3.2	3.6	3.5	4.5
1978	2.3	2.4	2.6	2.6	3.2	3.1	3.7	3.6	4.9
1979	2.4	2.5	2.7	2.9	3.4	3.1	3.5	3.3	4.6
1980	2.5	2.6	3.0	3.1	3.4	3.7	3.9	3.7	5.1
1981	2.6	2.6	3.2	3.3	3.7	3.9	3.8	3.4	5.2
1982	2.8	2.8	3.7	3.4	4.0	4.6	4.3	3.9	6.1
1983	3.0	3.1	3.6	3.6	4.2	4.5	4.6	4.4	6.1
1984	3.0	3.1	3.6	3.5	4.2	4.5	4.6	4.3	6.1
1985	2.9	3.0	3.6	3.3	4.2	4.6	4.5	4.3	5.8
1986	3.1	3.2	3.6	3.9	4.4	4.3	4.7	4.5	6.1
1987	3.2	3.3	4.0	4.0	4.6	5.2	5.0	4.8	6.4
1988	3.2	3.2	3.7	3.8	4.3	4.5	4.8	4.5	6.4
1989	3.4	3.6	4.0	4.3	4.9	5.2	5.3	5.2	6.3

NOTE: See note to table 1:10-1. See supplemental note 1:11 for a comparison of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Indicator 1:10

Table 1:10-7 Standard errors for estimated percentages in table 1:10-3

Year	White			Black			Hispanic[1]		
	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	2.7	3.0	2.5	—	—	—	—	—	—
1961	2.6	3.1	2.7	—	—	—	—	—	—
1962	2.6	3.0	2.5	—	—	—	—	—	—
1963	2.6	3.0	2.6	—	—	—	—	—	—
1964	2.5	2.8	2.5	—	—	—	—	—	—
1965	2.1	2.4	2.5	—	—	—	—	—	—
1966	2.3	2.6	2.1	—	—	—	—	—	—
1967	1.8	2.0	1.7	—	—	—	—	—	—
1968	1.9	2.1	1.6	—	—	—	—	—	—
1969	1.7	1.9	1.3	—	—	—	—	—	—
1970	1.7	2.0	1.7	—	—	—	—	—	—
1971	1.7	1.9	1.7	—	—	—	—	—	—
1972	1.5	1.7	1.4	—	—	—	—	—	—
1973	1.4	1.7	1.3	—	—	—	—	—	—
1974	1.4	1.7	1.4	—	—	—	—	—	—
1975	1.5	1.8	1.6	—	—	—	—	—	—
1976	1.3	1.7	1.5	—	—	—	—	—	—
1977	1.3	1.7	1.4	5.0	5.7	6.6	—	—	—
1978	1.3	1.6	1.2	4.7	5.4	6.1	—	—	—
1979	1.2	1.6	1.4	5.1	5.6	6.5	—	—	—
1980	1.3	1.7	1.5	4.7	4.9	6.2	—	—	—
1981	1.4	1.9	1.7	4.8	4.9	6.3	(2)	(2)	(2)
1982	1.5	2.0	1.9	4.8	4.7	6.1	6.6	7.5	(2)
1983	1.6	2.1	1.9	4.4	4.9	5.9	(2)	(2)	(2)
1984	1.6	2.2	2.0	4.4	5.0	5.7	6.0	7.4	8.1
1985	1.9	2.3	2.1	4.9	5.5	6.6	(2)	(2)	1(2)
1986	1.7	2.2	1.9	4.8	5.1	6.1	6.1	7.4	6.9
1987	1.7	2.2	1.9	5.6	6.3	7.1	6.4	6.9	6.9
1988	1.7	2.2	1.9	4.9	5.5	5.5	6.6	8.5	(2)
1989	1.8	2.3	2.0	5.8	6.4	6.4	7.6	8.7	(2)

— Not available.

[1] Hispanics may be of any race.

[2] Too few sample observations for a reliable estimate.

NOTE: See note to table 1:10-1. See supplemental note 1:11 for a comparison of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Table 1:10-8 Standard errors for estimated percentages in table 1:10-4

Year	White			Black			Hispanic[1]		
	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment	Labor Force	Employment	Unemployment
1960	5.5	5.6	5.7	—	—	—	—	—	—
1961	5.2	5.5	6.2	—	—	—	—	—	—
1962	6.4	6.3	7.7	—	—	—	—	—	—
1963	5.8	6.3	7.1	—	—	—	—	—	—
1964	4.3	4.2	5.2	—	—	—	—	—	—
1965	3.9	4.0	4.3	—	—	—	—	—	—
1966	4.2	4.4	4.0	—	—	—	—	—	—
1967	3.1	3.2	3.2	—	—	—	—	—	—
1968	3.1	3.3	3.2	—	—	—	—	—	—
1969	3.0	3.1	2.9	—	—	—	—	—	—
1970	2.9	3.0	3.2	—	—	—	—	—	—
1971	2.9	3.0	3.2	—	—	—	—	—	—
1972	2.9	3.0	3.2	—	—	—	—	—	—
1973	2.6	2.9	2.8	—	—	—	—	—	—
1974	2.6	2.8	3.0	—	—	—	—	—	—
1975	2.8	2.9	3.3	—	—	—	—	—	—
1976	2.7	2.9	3.1	—	—	—	—	—	—
1977	2.5	2.7	2.8	5.9	5.6	7.8	—	—	—
1978	2.5	2.8	2.9	5.6	5.5	7.0	—	—	—
1979	2.6	2.8	2.9	6.0	5.4	8.2	—	—	—
1980	2.7	2.9	3.2	6.1	5.1	8.6	—	—	—
1981	2.9	3.1	3.4	5.8	3.8	7.6	7.3	7.8	(2)
1982	3.2	3.3	3.9	6.9	4.9	(2)	(2)	(2)	(2)
1983	3.5	3.6	3.9	7.2	6.3	(2)	8.0	8.4	(2)
1984	3.3	3.5	3.8	7.7	6.5	(2)	7.9	7.5	(2)
1985	3.2	3.5	4.0	7.0	6.4	(2)	6.8	7.1	(2)
1986	3.4	3.6	3.9	8.4	7.9	(2)	6.5	6.6	7.4
1987	3.6	3.9	4.5	7.4	6.6	(2)	(2)	(2)	(2)
1988	3.5	3.6	3.9	7.6	6.6	(2)	7.2	7.4	(2)
1989	3.9	4.2	4.2	7.6	6.8	(2)	(2)	(2)	(2)

— Not available.

[1] Hispanics may be of any race.

[2] Too few sample observations for a reliable estimate.

NOTE: See note to table 1:10-1. See supplemental note 1:11 for a comparison of labor force statistics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations from the October Current Population Survey.

Indicator 1:11

Table 1:11-1 Labor force participation rate of 25- to 34-year-old *males*, by years of schooling completed: 1971–1990

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	95.8	91.2	95.9	97.9	94.3	95.2
1972	95.7	90.8	95.5	97.7	94.1	95.5
1973	95.3	91.9	95.4	96.5	91.9	95.8
1974	95.4	89.8	96.2	96.8	93.6	95.0
1975	94.7	89.8	93.7	96.1	94.2	96.1
1976	94.8	85.4	91.7	96.8	94.8	95.5
1977	95.2	87.5	94.6	96.4	94.1	96.2
1978	95.1	87.9	92.1	96.6	94.8	95.8
1979	95.1	86.3	91.5	96.5	95.2	97.0
1980	94.4	83.5	90.4	96.3	94.2	95.7
1981	94.7	85.2	91.6	96.1	94.2	96.1
1982	94.4	83.1	91.1	95.9	93.8	95.8
1983	94.0	81.2	92.2	94.9	94.2	95.2
1984	93.5	78.6	89.6	94.9	94.2	94.8
1985	93.8	81.9	89.8	95.1	94.4	94.9
1986	93.8	82.5	88.9	95.0	93.7	95.7
1987	93.6	85.1	89.3	94.6	93.9	94.9
1988	93.4	80.9	88.4	94.4	93.7	95.9
1989	93.8	84.3	89.3	94.1	94.8	95.9
1990	92.1	80.2	86.4	92.9	93.0	94.9

NOTE: The labor force participation rate is the percent of the population either employed or unemployed, that is, without a job and looking for work. Those not in the labor force are neither employed nor looking for work.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-2 Employment rate of 25- to 34-year-old *males*, by years of schooling completed: 1971–1990

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	90.9	82.2	87.9	93.6	89.9	92.5
1972	91.6	85.0	88.5	93.7	90.4	93.6
1973	91.3	83.9	88.8	93.1	88.5	93.5
1974	91.5	82.9	90.2	93.0	90.0	92.7
1975	87.4	73.3	78.1	88.4	87.6	93.5
1976	88.4	74.9	79.6	89.6	89.0	92.8
1977	88.9	74.2	81.5	89.5	89.1	93.3
1978	90.1	77.0	82.4	90.8	91.2	93.5
1979	90.3	78.6	80.5	91.3	90.9	94.1
1980	88.1	71.6	77.7	87.0	88.5	93.4
1981	87.5	75.0	76.7	86.9	88.5	93.7
1982	84.4	68.0	73.2	83.3	85.2	91.9
1983	81.6	64.2	69.3	78.6	83.8	91.1
1984	85.3	67.0	72.2	84.8	87.9	91.9
1985	86.9	73.0	76.0	86.1	89.7	92.2
1986	86.7	69.4	73.3	86.2	89.0	93.7
1987	86.8	73.3	75.0	86.8	89.0	92.1
1988	87.4	71.4	75.5	87.2	89.8	93.7
1989	88.4	76.4	77.6	87.8	91.1	93.7
1990	87.9	75.0	75.9	88.6	89.7	93.1

NOTE: The employment rate is the percent of the population employed.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-3 Unemployment rate of 25- to 34-year-old *males*, by years of schooling completed: 1971–1990

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	5.2	9.8	8.3	4.4	4.6	2.8
1972	4.3	6.4	7.3	4.1	4.0	2.0
1973	4.2	8.7	6.9	3.5	3.7	2.4
1974	4.1	7.7	6.3	4.0	3.9	2.4
1975	7.6	18.4	16.7	9.5	6.1	2.4
1976	6.8	12.3	13.2	7.5	6.1	2.8
1977	6.7	15.2	13.9	7.1	5.4	3.0
1978	5.2	12.4	10.5	6.0	3.8	2.4
1979	5.0	9.0	12.1	5.4	4.5	2.0
1980	6.7	14.3	14.1	9.7	6.0	2.5
1981	7.6	11.9	16.3	9.5	6.1	2.4
1982	10.6	18.2	19.6	13.1	9.2	4.0
1983	13.1	20.9	24.8	17.2	11.1	4.3
1984	8.7	14.7	19.5	10.6	6.7	3.0
1985	7.3	10.8	15.3	9.5	4.9	2.8
1986	7.5	15.9	17.6	9.3	5.0	2.1
1987	7.3	13.8	16.0	8.2	5.3	3.0
1988	6.4	11.7	14.6	7.6	4.2	2.3
1989	5.7	9.3	13.1	6.7	3.9	2.3
1990	4.5	6.5	12.1	4.6	3.6	1.9

NOTE: The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. The labor force is the sum of those with jobs and those unemployed; it excludes those without jobs and not looking for work.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-4 Labor force participation rate of 25- to 34-year-old *females*, by years of schooling completed: 1971–1990

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	46.0	32.9	40.6	46.2	47.7	59.2
1972	47.9	37.0	40.8	47.3	49.9	61.5
1973	50.1	37.0	41.8	48.4	53.0	64.2
1974	52.6	37.0	44.5	50.2	56.5	68.7
1975	54.2	36.7	42.6	53.3	57.5	68.9
1976	56.8	38.4	46.0	54.6	60.9	71.3
1977	59.3	36.7	48.7	57.8	62.2	72.4
1978	61.9	41.0	49.2	60.2	66.4	74.3
1979	63.5	40.0	49.9	61.9	67.4	76.6
1980	66.0	41.6	52.8	64.3	70.5	77.5
1981	67.4	38.7	51.3	66.9	71.6	78.7
1982	68.0	41.4	48.3	66.6	73.1	80.7
1983	68.8	39.3	49.1	66.3	74.2	82.6
1984	69.9	37.5	51.3	67.8	74.2	82.9
1985	71.1	42.6	49.6	69.9	75.5	82.8
1986	71.4	40.5	54.8	69.8	75.2	82.4
1987	72.3	39.6	53.7	71.2	76.0	83.5
1988	72.7	38.3	55.4	71.1	78.3	83.2
1989	72.7	43.4	50.6	71.1	77.4	84.1
1990	73.3	44.3	52.7	71.6	77.6	84.9

NOTE: The labor force participation rate is the percent of the population either employed or unemployed, that is, without a job and looking for work. Those not in the labor force are neither employed nor looking for work.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-5 Employment rate of 25- to 34-year-old *females*, by years of schooling completed: 1971–1990

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	42.7	29.3	35.2	43.1	44.9	56.9
1972	45.1	33.5	36.1	44.9	47.4	59.8
1973	47.4	32.8	38.4	45.7	51.0	62.6
1974	49.7	33.3	39.8	47.6	54.2	66.6
1975	49.3	30.5	34.5	48.0	53.6	66.4
1976	52.3	33.7	39.5	49.8	56.5	68.8
1977	54.6	31.8	41.0	53.0	58.0	69.5
1978	57.9	35.6	42.4	55.9	63.3	72.1
1979	59.6	33.6	43.2	58.0	64.2	74.0
1980	61.6	35.0	45.6	59.5	66.3	75.5
1981	62.5	32.5	42.7	61.3	67.6	76.4
1982	62.1	32.8	39.7	59.6	68.2	77.7
1983	62.1	31.3	37.1	58.8	68.3	79.2
1984	64.2	31.7	41.5	61.0	69.5	80.4
1985	65.9	35.1	40.3	63.9	71.0	80.6
1986	66.2	35.2	44.1	63.8	70.6	80.3
1987	67.5	34.3	44.0	65.6	72.2	81.4
1988	68.8	34.5	46.9	66.8	74.8	81.2
1989	68.9	38.3	43.0	66.9	74.0	82.1
1990	69.9	38.6	44.3	67.5	74.5	83.2

NOTE: The employment rate is the percent of the population employed.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-6 Unemployment rate of 25- to 34-year-old *females*, by years of schooling completed: 1971–1990

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	7.3	11.1	13.2	6.6	5.9	4.0
1972	5.8	9.5	11.4	5.1	5.1	2.8
1973	5.3	11.4	8.2	5.7	3.7	2.6
1974	5.5	10.1	10.5	5.3	4.2	3.1
1975	9.1	17.1	19.0	10.1	6.9	3.6
1976	8.0	12.2	14.0	8.8	7.2	3.6
1977	7.9	13.2	15.7	8.3	6.8	4.1
1978	6.5	13.1	13.8	7.2	4.7	2.9
1979	6.2	16.0	13.5	6.2	4.7	3.5
1980	6.8	15.7	13.6	7.5	5.9	2.6
1981	7.3	16.0	16.6	8.5	5.6	2.9
1982	8.8	20.8	17.8	10.6	6.7	3.7
1983	9.7	20.3	24.4	11.3	7.9	4.1
1984	8.1	15.4	19.1	10.1	6.4	3.1
1985	7.3	17.7	18.8	8.6	5.9	2.7
1986	7.3	13.2	19.4	8.6	6.1	2.5
1987	6.6	13.4	18.0	7.9	5.0	2.5
1988	5.4	10.1	15.1	6.1	4.4	2.4
1989	5.3	11.9	15.0	5.9	4.4	2.3
1990	5.1	13.0	15.9	5.7	4.0	2.0

NOTE: The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. The labor force is the sum of those with jobs and those unemployed; it excludes those without jobs and not looking for work.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-7 Standard errors for estimated percentages in table 1:11-1

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	0.3	1.2	0.7	0.3	0.7	0.6
1972	0.3	1.2	0.7	0.3	0.7	0.6
1973	0.3	1.1	0.7	0.4	0.8	0.5
1974	0.3	1.3	0.7	0.3	0.7	0.5
1975	0.3	1.4	0.9	0.4	0.6	0.5
1976	0.3	1.7	1.0	0.3	0.6	0.5
1977	0.2	1.7	0.8	0.4	0.6	0.4
1978	0.2	1.6	1.0	0.3	0.5	0.4
1979	0.2	1.6	1.0	0.3	0.5	0.4
1980	0.3	1.9	1.1	0.4	0.6	0.4
1981	0.3	1.8	1.0	0.4	0.6	0.4
1982	0.3	2.0	1.1	0.4	0.6	0.4
1983	0.3	2.0	1.0	0.4	0.5	0.5
1984	0.3	2.0	1.1	0.4	0.6	0.5
1985	0.3	2.0	1.1	0.4	0.5	0.5
1986	0.3	1.9	1.1	0.4	0.6	0.4
1987	0.3	1.8	1.0	0.4	0.6	0.5
1988	0.3	2.0	1.0	0.4	0.6	0.4
1989	0.3	1.9	1.0	0.4	0.5	0.4
1990	0.3	1.9	1.1	0.4	0.6	0.5

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-8 Standard errors for estimated percentages in table 1:11-2

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	0.4	1.7	1.1	0.5	1.0	0.8
1972	0.4	1.6	1.1	0.5	0.9	0.7
1973	0.4	1.6	1.1	0.5	1.0	0.7
1974	0.3	1.7	1.1	0.5	0.9	0.7
1975	0.4	2.1	1.5	0.6	0.9	0.6
1976	0.4	2.3	1.5	0.6	0.8	0.6
1977	0.4	2.3	1.4	0.6	0.8	0.5
1978	0.3	2.2	1.4	0.6	0.7	0.5
1979	0.3	2.1	1.5	0.5	0.7	0.5
1980	0.4	2.5	1.7	0.7	0.8	0.6
1981	0.4	2.4	1.6	0.6	0.8	0.5
1982	0.4	2.7	1.7	0.7	0.9	0.6
1983	0.4	2.7	1.8	0.8	0.9	0.6
1984	0.4	2.6	1.7	0.6	0.8	0.6
1985	0.4	2.5	1.6	0.6	0.7	0.6
1986	0.4	2.5	1.6	0.6	0.7	0.5
1987	0.4	2.4	1.5	0.6	0.8	0.6
1988	0.4	2.5	1.5	0.6	0.7	0.5
1989	0.3	2.4	1.5	0.6	0.7	0.5
1990	0.4	2.3	1.5	0.5	0.7	0.6

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-9 Standard errors for estimated percentages in table 1:11-3

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	0.3	1.3	1.0	0.4	0.7	0.5
1972	0.3	1.1	0.9	0.4	0.6	0.4
1973	0.3	1.2	0.9	0.4	0.6	0.4
1974	0.2	1.2	0.9	0.4	0.6	0.4
1975	0.3	1.8	1.4	0.6	0.7	0.4
1976	0.3	1.7	1.3	0.5	0.6	0.4
1977	0.3	1.9	1.3	0.5	0.6	0.4
1978	0.3	1.7	1.2	0.5	0.5	0.3
1979	0.2	1.5	1.3	0.4	0.5	0.3
1980	0.3	1.9	1.4	0.6	0.6	0.3
1981	0.3	1.8	1.4	0.6	0.6	0.3
1982	0.4	2.2	1.6	0.6	0.6	0.3
1983	0.4	2.3	1.7	0.7	0.7	0.4
1984	0.3	2.0	1.5	0.6	0.8	0.4
1985	0.3	1.7	1.4	0.5	0.6	0.4
1986	0.3	2.0	1.4	0.5	0.5	0.4
1987	0.3	1.9	1.3	0.5	0.5	0.3
1988	0.3	1.8	1.2	0.5	0.5	0.4
1989	0.3	1.7	1.2	0.4	0.5	0.3
1990	0.2	1.3	1.2	0.4	0.4	0.3

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:11-10 Standard errors for estimated percentages in table 1:11-4

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	0.6	2.1	1.5	0.9	1.7	1.7
1972	0.6	2.2	1.5	0.9	1.6	1.6
1973	0.6	2.1	1.5	0.9	1.6	1.5
1974	0.6	2.2	1.5	0.9	1.4	1.3
1975	0.6	2.2	1.5	0.8	1.4	1.3
1976	0.6	2.3	1.6	0.8	1.3	1.2
1977	0.5	2.3	1.5	0.8	1.3	1.1
1978	0.5	2.3	1.6	0.8	1.2	1.1
1979	0.5	2.4	1.6	0.8	1.1	1.0
1980	0.5	2.5	1.7	0.8	1.1	1.0
1981	0.5	2.5	1.7	0.8	1.1	1.0
1982	0.5	2.5	1.7	0.8	1.0	0.9
1983	0.5	2.6	1.7	0.8	1.0	0.9
1984	0.5	2.6	1.7	0.8	1.0	0.8
1985	0.5	2.7	1.8	0.7	1.0	0.8
1986	0.5	2.6	1.7	0.7	1.0	0.8
1987	0.5	2.6	1.7	0.7	0.9	0.8
1988	0.5	2.5	1.8	0.7	0.9	0.8
1989	0.5	2.7	1.8	0.7	0.9	0.8
1990	0.5	2.6	1.7	0.7	0.9	0.8

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Indicator 1:11

Table 1:11-11 Standard errors for estimated percentages in table 1:11-5

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	0.9	3.5	2.3	1.3	2.4	2.2
1972	0.9	3.5	2.3	1.3	2.3	2.0
1973	0.8	3.4	2.3	1.2	2.2	1.9
1974	0.8	3.6	2.2	1.2	1.9	1.6
1975	0.8	3.4	2.2	1.2	1.9	1.5
1976	0.7	3.6	2.3	1.1	1.7	1.4
1977	0.7	3.7	2.2	1.1	1.6	1.3
1978	0.7	3.5	2.2	1.1	1.5	1.3
1979	0.7	3.6	2.2	1.0	1.4	1.2
1980	0.7	3.8	2.4	1.0	1.4	1.2
1981	0.6	3.9	2.4	1.0	1.3	1.2
1982	0.6	3.8	2.4	1.0	1.3	1.1
1983	0.6	3.9	2.4	1.0	1.3	1.0
1984	0.6	4.0	2.4	1.0	1.2	1.0
1985	0.6	3.9	2.4	0.9	1.2	1.0
1986	0.6	4.0	2.3	0.9	1.2	1.0
1987	0.6	4.0	2.3	0.9	1.1	0.9
1988	0.6	4.0	2.4	0.9	1.1	0.9
1989	0.6	4.0	2.4	0.9	1.1	0.9
1990	0.6	3.8	2.4	0.9	1.1	0.9

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Indicator 1:11

Table 1:11-12 Standard errors for estimated percentages in table 1:11-6

Year	Total	Less than 9 years of school	9-11 years of school	12 years of school	1-3 years of college	4 or more years of college
				Percent		
1971	0.5	2.4	1.6	0.7	1.1	0.9
1972	0.4	2.2	1.5	0.6	1.0	0.7
1973	0.4	2.3	1.3	0.6	0.8	0.6
1974	0.4	2.3	1.4	0.5	0.8	0.6
1975	0.4	2.8	1.8	0.7	0.9	0.6
1976	0.4	2.5	1.6	0.6	0.9	0.6
1977	0.4	2.7	1.6	0.6	0.8	0.6
1978	0.3	2.5	1.6	0.6	0.6	0.5
1979	0.3	2.8	1.5	0.5	0.6	0.5
1980	0.3	2.9	1.6	0.6	0.7	0.4
1981	0.3	3.1	1.8	0.6	0.7	0.5
1982	0.4	3.3	1.9	0.6	0.7	0.5
1983	0.4	3.4	2.1	0.6	0.7	0.5
1984	0.3	3.1	1.9	0.6	0.7	0.4
1985	0.3	3.2	1.9	0.5	0.6	0.4
1986	0.3	2.8	1.9	0.5	0.6	0.4
1987	0.3	2.9	1.8	0.5	0.5	0.4
1988	0.3	2.5	1.7	0.4	0.5	0.4
1989	0.3	2.7	1.8	0.4	0.5	0.4
1990	0.3	2.6	1.8	0.4	0.5	0.3

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Supplemental note 1:11 Labor force statistics

The Bureau of Labor Statistics uses three categories to classify the labor force status of an individual: (1) employed, (2) unemployed, and (3) not in the labor force. An *employed* individual is someone with a job and working. Also included are those not working but with jobs from which they are temporarily absent because of illness, vacation, labor-management disputes, bad weather, and personal reasons. Those in the military are also counted as employed. An *unemployed* individual is someone without a job, available for work, and who has made specific efforts to find employment some time during the prior 4 weeks. Also included are persons waiting to be recalled to a job from which they had been laid off or who are waiting to report to a new job within 30 days. Individuals who are neither employed nor unemployed are *not in the labor force.*

The *labor force* comprises all persons classified as employed or unemployed. The *unemployment rate* represents the number unemployed as a percent of the labor force. The *labor force participation rate* is the ratio of the labor force to the population. The *employment-population* ratio is the percentage of employed individuals in the population. We refer to the last statistic as the *employment rate* in indicator 1:10.

Each of these statistics is typically reported in two forms, one that includes the military and one that excludes them. For instance, the *civilian employment-population ratio* is the percentage of all employed civilians in the civilian non-institutional population. The *civilian labor force participation rate* is the ratio of the civilian labor force to the civilian non-institutional population. The labor force statistics reported in *Indicator 1:10* and its associated supplemental tables are all for the civilian non-institutional population.

Each of these measures can be computed for groups classified by age, sex, race, Hispanic origin, etc.

Further elaboration on these labor force statistics is available in the explanatory notes of *Employment and Earnings*, published monthly by the Bureau of Labor Statistics of the U.S. Department of Labor.

Indicator 1:12

Table 1:12-1 Ratio of median annual earnings of *male* wage and salary workers 25 to 34 years old with 9-11, 13-15, and 16 or more years of school to those with 12 years of school, by race/ethnicity: 1975–1989

	9-11 years of school			13-15 years of school			16 or more years of school		
Year	White	Black	Hispanic*	White	Black	Hispanic*	White	Black	Hispanic*
				All wage and salary workers					
1975	0.81	0.67	—	1.09	1.04	—	1.18	1.29	—
1976	0.79	0.80	0.89	1.02	1.07	0.97	1.14	1.41	1.17
1977	0.79	0.77	0.86	1.02	1.13	0.96	1.15	1.42	1.29
1978	0.78	0.74	0.79	1.01	1.30	1.00	1.13	1.48	1.23
1979	0.79	0.78	0.82	1.03	1.17	1.16	1.11	1.31	1.22
1980	0.80	0.75	0.92	1.03	1.13	1.20	1.18	1.33	1.27
1981	0.78	0.68	0.91	1.08	1.12	1.21	1.29	1.34	1.27
1982	0.72	0.77	0.74	1.11	1.04	1.14	1.33	1.55	1.47
1983	0.75	0.65	0.71	1.12	1.32	1.10	1.34	1.50	1.34
1984	0.64	0.61	0.79	1.13	1.16	1.13	1.32	1.53	1.27
1985	0.73	0.70	0.86	1.18	1.13	1.34	1.45	1.77	1.81
1986	0.72	0.85	0.83	1.16	1.26	1.28	1.43	1.64	1.71
1987	0.72	0.86	0.77	1.10	1.27	1.16	1.38	1.47	1.57
1988	0.70	0.56	0.70	1.08	1.12	1.10	1.41	1.37	1.29
1989	0.73	0.60	0.75	1.12	1.21	1.23	1.45	1.42	1.31
				Year-round, full-time, wage and salary workers					
1975	0.86	0.73	—	1.10	1.05	—	1.18	1.21	—
1976	0.88	0.81	0.90	1.06	1.11	1.07	1.18	1.30	1.35
1977	0.83	0.81	0.89	1.05	1.16	1.02	1.14	1.40	1.32
1978	0.82	0.71	0.76	1.01	1.16	0.95	1.11	1.24	1.15
1979	0.85	0.78	0.87	1.04	1.07	1.14	1.14	1.32	1.28
1980	0.86	0.69	0.92	1.06	1.07	1.17	1.20	1.22	1.22
1981	0.85	0.69	0.92	1.10	1.04	1.22	1.25	1.30	1.35
1982	0.81	0.80	0.78	1.10	1.03	1.11	1.25	1.36	1.36
1983	0.77	0.74	0.82	1.09	1.20	1.08	1.27	1.51	1.29
1984	0.78	0.75	0.85	1.09	1.23	1.07	1.23	1.50	1.25
1985	0.79	0.73	0.90	1.14	1.09	1.35	1.31	1.63	1.65
1986	0.79	0.79	0.87	1.14	1.18	1.15	1.32	1.50	1.50
1987	0.80	0.89	0.75	1.09	1.20	1.13	1.32	1.46	1.36
1988	0.79	0.81	0.77	1.14	1.26	1.07	1.40	1.31	1.28
1989	0.82	0.75	0.89	1.16	1.14	1.19	1.47	1.30	1.37

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:12-2 Ratio of median annual earnings of *female* wage and salary workers 25 to 34 years old with 9-11, 13-15, and 16 or more years of school to those with 12 years of school, by race/ethnicity: 1975–1989

Year	9-11 years of school			13-15 years of school			16 or more years of school		
	White	Black	Hispanic[1]	White	Black	Hispanic[1]	White	Black	Hispanic[1]
				All wage and salary workers					
1975	0.65	0.60	—	1.23	1.31	—	1.74	1.70	—
1976	0.61	0.58	0.84	1.15	1.16	1.12	1.61	1.58	1.78
1977	0.62	0.63	0.76	1.23	1.20	1.13	1.53	1.61	1.60
1978	0.55	0.48	0.50	1.16	1.21	1.08	1.58	1.38	1.65
1979	0.71	0.66	0.67	1.21	1.24	1.15	1.56	1.53	1.51
1980	0.63	0.73	0.71	1.24	1.24	1.11	1.54	1.65	1.48
1981	0.62	0.56	—	1.23	1.21	—	1.55	1.58	—
1982	0.66	0.69	0.80	1.21	1.21	1.28	1.61	1.65	1.53
1983	0.66	0.65	0.68	1.31	1.11	1.40	1.69	1.59	1.73
1984	0.58	0.52	0.61	1.24	1.27	1.23	1.59	1.68	1.55
1985	0.62	0.66	0.72	1.22	1.22	1.13	1.64	1.76	1.67
1986	0.62	0.78	0.55	1.24	1.30	1.26	1.74	1.92	1.64
1987	0.70	0.56	0.67	1.21	1.35	1.35	1.72	1.93	1.83
1988	0.53	0.62	0.64	1.29	1.34	1.14	1.78	1.93	1.70
1989	0.66	0.50	0.72	1.30	1.44	1.28	1.89	2.05	2.02
				Year-round, full-time, wage and salary workers					
1975	0.80	0.65	—	1.14	1.11	—	1.39	1.29	—
1976	0.82	0.73	0.65	1.12	1.10	1.07	1.35	1.45	1.40
1977	0.83	0.75	0.87	1.11	1.10	1.15	1.27	1.43	1.32
1978	0.83	0.78	0.81	1.08	1.13	1.13	1.28	1.20	1.28
1979	0.82	0.86	0.79	1.12	1.18	1.27	1.32	1.37	1.37
1980	0.79	0.80	0.73	1.12	1.09	1.15	1.35	1.37	1.41
1981	0.77	0.67	0.92	1.15	1.10	1.23	1.38	1.33	1.39
1982	0.77	0.92	0.74	1.15	1.21	1.05	1.36	1.39	1.22
1983	0.79	0.70	0.92	1.20	1.16	1.19	1.36	1.33	1.35
1984	0.84	0.70	0.88	1.14	1.13	1.15	1.41	1.49	1.47
1985	0.84	0.77	0.87	1.15	1.13	1.15	1.46	1.46	1.45
1986	0.83	0.82	0.76	1.19	1.14	1.04	1.49	1.58	1.31
1987	0.78	0.82	0.75	1.14	1.25	1.14	1.50	1.53	1.51
1988	0.70	0.77	0.71	1.20	1.32	1.35	1.55	1.62	1.54
1989	0.73	([2])	([2])	1.19	1.20	1.21	1.59	1.58	1.63

— Not available.

[1] Hispanics may be of any race.

[2] Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:12-3 Median annual earnings of wage and salary workers 25 to 34 years old with 12 years of school, by sex and race/ethnicity: 1975–1989 (Constant 1990 dollars)

Year	Male			Female		
	White	Black	Hispanic*	White	Black	Hispanic*
			All wage and salary workers			
1975	$26,820	$21,909	—	$11,609	$13,338	—
1976	27,510	19,864	$23,795	12,075	14,385	$12,127
1977	27,328	20,158	22,443	12,497	13,903	12,608
1978	27,648	20,390	24,380	12,097	14,315	12,468
1979	27,054	19,827	21,357	12,394	13,144	12,476
1980	24,747	18,030	19,796	12,422	12,445	12,049
1981	22,943	17,852	19,223	12,067	12,370	—
1982	21,481	16,025	18,469	11,739	12,168	11,974
1983	21,731	15,296	18,752	11,752	12,994	11,364
1984	22,832	15,375	19,601	12,499	12,327	12,562
1985	21,634	16,258	17,009	12,724	11,451	12,331
1986	21,986	14,952	17,766	12,599	11,159	12,838
1987	22,574	14,830	18,320	13,190	11,925	12,802
1988	22,640	16,890	18,527	12,836	11,749	12,431
1989	21,952	16,020	17,138	12,311	10,983	12,007
			Year-round, full-time, wage and salary workers			
1975	$27,050	$25,985	—	$17,952	$18,526	—
1976	29,172	24,190	$26,094	18,371	17,844	$17,618
1977	29,725	22,441	24,844	18,765	17,631	17,798
1978	30,236	25,986	27,875	18,487	17,788	17,554
1979	28,957	23,310	24,658	17,921	16,558	16,481
1980	26,916	21,615	22,747	17,497	16,586	16,750
1981	25,713	22,036	21,917	16,914	16,383	15,779
1982	25,153	20,333	21,716	16,964	15,595	16,556
1983	25,628	18,533	21,510	16,922	16,295	16,013
1984	26,265	18,042	23,517	17,326	15,435	16,446
1985	25,134	18,848	19,607	17,645	15,019	16,924
1986	25,106	18,457	21,164	17,496	15,133	18,384
1987	25,188	17,965	22,149	17,564	15,509	17,024
1988	24,658	18,527	21,785	17,413	14,823	16,469
1989	22,740	18,877	19,224	16,847	15,778	16,217

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:12-4 Standard errors for estimated ratios in table 1:12-1

	9-11 years of school			13-15 years of school			16 or more years of school		
Year	White	Black	Hispanic*	White	Black	Hispanic*	White	Black	Hispanic*
				All wage and salary workers					
1975	—	—	—	—	—	—	—	—	—
1976	0.03	0.08	0.09	0.02	0.10	0.12	0.02	0.15	0.23
1977	0.02	0.05	0.08	0.02	0.07	0.08	0.02	0.09	0.15
1978	0.02	0.06	0.11	0.02	0.10	0.09	0.02	0.12	0.16
1979	0.03	0.07	0.07	0.01	0.07	0.15	0.02	0.11	0.15
1980	0.02	0.04	0.10	0.02	0.07	0.12	0.02	0.11	0.18
1981	0.02	0.06	0.11	0.02	0.07	0.14	0.02	0.11	0.20
1982	0.03	0.07	0.10	0.02	0.08	0.12	0.02	0.12	0.17
1983	0.02	0.04	0.11	0.03	0.07	0.09	0.02	0.13	0.15
1984	0.03	0.04	0.10	0.02	0.08	0.12	0.03	0.09	0.16
1985	0.03	0.05	0.07	0.02	0.06	0.11	0.02	0.13	0.11
1986	0.03	0.05	0.08	0.02	0.07	0.10	0.02	0.11	0.09
1987	0.03	0.09	0.05	0.02	0.08	0.10	0.03	0.13	0.11
1988	0.03	0.05	0.05	0.02	0.08	0.10	0.04	0.07	0.13
1989	0.02	0.07	0.07	0.02	0.08	0.10			
				Year-round, full-time, wage and salary workers					
1975	—	—	—	—	—	—	—	—	—
1976	0.03	0.08	0.11	0.02	0.11	0.15	0.03	0.14	0.24
1977	0.02	0.05	0.08	0.02	0.06	0.11	0.02	0.08	0.14
1978	0.02	0.08	0.10	0.01	0.08	0.11	0.01	0.09	0.13
1979	0.03	0.04	0.11	0.02	0.06	0.13	0.02	0.10	0.19
1980	0.03	0.06	0.10	0.02	0.07	0.12	0.02	0.09	0.17
1981	0.03	0.06	0.11	0.02	0.06	0.16	0.02	0.12	0.18
1982	0.03	0.10	0.08	0.02	0.07	0.12	0.03	0.10	0.13
1983	0.02	0.08	0.08	0.02	0.07	0.11	0.03	0.12	0.10
1984	0.03	0.05	0.10	0.02	0.09	0.12	0.01	0.11	0.16
1985	0.03	0.06	0.08	0.02	0.05	0.12	0.02	0.06	0.10
1986	0.02	0.04	0.07	0.02	0.07	0.08	0.02	0.11	0.09
1987	0.02	0.06	0.07	0.02	0.08	0.10	0.02	0.11	0.09
1988	0.03	0.09	0.08	0.02	0.08	0.09	0.02	0.14	0.14
1989	0.03	0.05	0.07	0.02	0.06	0.13	0.02	0.09	0.20

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:12-5 Standard errors for estimated ratios in table 1:12-2

Year	9-11 years of school			13-15 years of school			16 or more years of school		
	White	Black	Hispanic[1]	White	Black	Hispanic[1]	White	Black	Hispanic[1]
				All wage and salary workers					
1975	—	—	—	—	—	—	—	—	—
1976	0.06	0.08	0.15	0.06	0.10	0.20	0.06	0.17	0.34
1977	0.04	0.07	0.13	0.04	0.06	0.22	0.05	0.09	0.24
1978	0.03	0.07	0.14	0.04	0.08	0.22	0.05	0.09	0.24
1979	0.05	0.07	0.13	0.04	0.09	0.20	0.04	0.11	0.26
1980	0.05	0.09	0.15	0.04	0.08	0.18	0.04	0.09	0.22
1981	0.04	0.06	—	0.03	0.08	—	0.04	0.12	—
1982	0.04	0.08	0.14	0.04	0.08	0.15	0.05	0.10	0.19
1983	0.04	0.05	0.16	0.04	0.08	0.18	0.04	0.08	0.20
1984	0.04	0.12	0.13	0.03	0.06	0.14	0.03	0.11	0.20
1985	0.05	0.06	0.11	0.03	0.09	0.14	0.04	0.12	0.20
1986	0.04	0.08	0.13	0.04	0.09	0.13	0.04	0.15	0.17
1987	0.04	0.06	0.09	0.03	0.10	0.14	0.05	0.09	0.17
1988	0.04	0.08	0.11	0.04	0.11	0.14	0.04	0.09	0.20
1989	0.05	0.10	0.10	0.04	0.10	0.14	0.04	0.13	0.20
				Year-round, full-time, wage and salary workers					
1975	—	—	—	—	—	—	—	—	—
1976	0.05	0.04	0.09	0.04	0.06	0.21	0.04	0.13	0.20
1977	0.03	0.04	0.12	0.02	0.05	0.10	0.02	0.08	0.11
1978	0.04	0.07	0.13	0.02	0.06	0.15	0.03	0.07	0.16
1979	0.04	0.08	0.12	0.02	0.07	0.19	0.02	0.09	0.18
1980	0.04	0.10	0.12	0.02	0.06	0.14	0.03	0.08	0.18
1981	0.04	0.05	0.14	0.02	0.06	0.14	0.03	0.12	0.21
1982	0.04	0.06	0.08	0.03	0.07	0.11	0.02	0.07	0.17
1984	0.05	0.04	0.13	0.02	0.05	0.11	0.03	0.11	0.16
1985	0.05	0.07	0.11	0.03	0.06	0.12	0.03	0.09	0.15
1986	0.03	0.05	0.08	0.03	0.07	0.06	0.03	0.11	0.10
1987	0.03	0.08	0.09	0.02	0.07	0.08	0.03	0.07	0.11
1988	0.03	0.15	0.10	0.04	0.10	0.19	0.04	0.09	0.16
1989	0.03	([2])	([2])	0.03	0.08	0.15	0.03	0.11	0.19

— Not available.

[1] Hispanics may be of any race.

[2] Too few sample observations for a reliable estimate.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:12-6 Standard errors for estimated medians in table 1:12-3 (Constant 1990 dollars)

Year	Male			Female		
	White	Black	Hispanic*	White	Black	Hispanic*
			All wage and salary workers			
1975	—	—	—	—	—	—
1976	$303	$494	$703	$151	$356	$553
1977	203	404	646	123	232	503
1978	309	567	975	128	255	557
1979	377	500	765	154	319	624
1980	312	510	1,022	162	324	524
1981	354	463	869	157	385	—
1982	410	479	989	188	401	677
1983	315	421	943	178	367	724
1984	437	328	1,373	160	379	728
1985	449	408	768	181	463	744
1986	458	443	771	164	540	735
1987	444	527	830	227	346	816
1988	513	501	820	198	396	657
1989	222	634	718	207	539	613
			Year-round, full-time, wage and salary workers			
1975	—	—	—	—	—	—
1976	$157	$550	$714	$181	$304	$604
1977	153	240	670	116	233	550
1978	111	600	1,086	146	313	686
1979	152	430	1,218	105	299	691
1980	179	603	1,022	127	363	617
1981	238	526	1,122	163	479	736
1982	275	606	873	145	433	912
1983	308	618	871	165	388	815
1984	199	490	1,373	200	357	810
1985	236	351	763	240	409	1,143
1986	232	471	883	249	537	557
1987	252	576	1,074	152	544	708
1988	284	462	1,159	220	664	847
1989	236	597	1,117	215	902	1,190

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years, and unpublished tabulations based on the March Current Population Survey.

Table 1:13-1 Percent of students in special education classes at the secondary level with standard errors, and disability concentration ratio, by individual and family characteristics: 1985–1986

Characteristic	Percent of 1987 secondary students in special education classes	Standard error	Percent of 1980 sophomores	Disability concentration ratio
Sex:				
Male	68.5	1.2	49.7	1.4
Female	31.5	1.2	50.3	0.6
Attending school in an area that is:				
Urban	31.6	1.2	22.3	1.4
Suburban	33.7	1.2	47.9	0.7
Rural	34.7	1.2	28.7	1.2
Race/ethnicity:				
Black	24.2	1.2	12.2	2.0
White	65.0	1.3	70.0	0.9
Hispanic	8.1	0.8	12.6	0.6
Other	2.7	0.4	5.2	0.5
Age:				
15 or 16	33.0	1.2	—	—
17 or 18	38.1	1.3	—	—
19 or 20	22.9	1.1	—	—
Over 20	5.9	0.6	—	—
In single-parent family:	36.8	1.4	29.7	1.2
Educational attainment of household head:				
Less than high school	41.0	1.4	31.1	1.3
High school graduate	36.0	1.4	27.8	1.3
Some college/2-year degree	14.0	1.0	20.9	0.7
College degree or more	8.9	0.8	13.6	0.7
Annual household income:				
Less than $25,000	67.7	1.4	55.0	1.2
Equal to or greater than $25,000	32.2	1.4	45.1	0.7
In household receiving:				
Social security disability benefits	9.6	0.8	—	—
Social security survivors benefits	8.1	0.8	—	—
Supplemental security income	14.4	1.0	—	—
Medicaid or similar benefits	21.6	1.2	—	—
Aid to families with dependent children	12.5	1.0	17.4	0.7
Public assistance	10.8	0.9	—	—
Food stamps	23.7	1.2	12.9	1.8
Unemployment insurance	7.3	0.8	—	—
Other benefits	4.3	0.6	—	—
None of these benefits	50.1	1.4	—	—

— Not available.

SOURCE: U.S. Department of Education, Office of Special Education Programs, National Longitudinal Transition Study, *Youth with Disabilities During Transition: An Overview of Descriptive Findings from the National Longitudinal Transition Study*, May 1989.

Table 1:13-2 Elementary and secondary students served in federally supported education programs for the handicapped, by type of handicap: School years ending 1977–1989

Type of handicap	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
							Number served[1] (in thousands)						
All conditions	3,692	3,751	3,889	4,005	4,142	4,198	4,255	4,298	4,315	4,317	4,374	4,446	4,544
Learning disabled	796	964	1,130	1,276	1,462	1,622	1,741	1,806	1,832	1,862	1,914	1,928	1,987
Speech impaired	1,302	1,223	1,214	1,186	1,168	1,135	1,131	1,128	1,126	1,125	1,136	953	976
Mentally retarded	959	933	901	869	829	786	757	727	694	660	643	582	564
Seriously emotionally disturbed	283	288	300	329	346	339	352	361	372	375	383	373	376
Hard of hearing and deaf	87	85	85	80	79	75	73	72	69	66	65	56	56
Orthopedically handicapped	87	87	70	66	58	58	57	56	56	57	57	47	47
Other health impaired	141	135	105	106	98	79	50	53	68	57	52	45	43
Visually impaired	38	35	32	31	31	29	28	29	28	27	26	22	23
Multihandicapped	—	—	50	60	68	71	63	65	69	86	97	77	85
Deaf-blind	—	—	2	2	3	2	2	2	2	2	2	1	2
Preschool[2]	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	363	394
							Percentage distribution of children served						
All conditions	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Learning disabled	21.6	25.7	29.1	31.9	35.3	38.6	40.9	42.0	42.4	43.1	43.8	43.4	43.6
Speech impaired	35.3	32.6	31.2	29.6	28.2	27.0	26.6	26.2	26.1	26.1	26.0	21.4	21.1
Mentally retarded	26.0	24.9	23.2	21.7	20.0	18.7	17.8	16.9	16.1	15.3	14.7	13.1	12.7
Seriously emotionally disturbed	7.7	7.7	7.7	8.2	8.4	8.1	8.3	8.4	8.6	8.7	8.8	8.4	8.3
Hard of hearing and deaf	2.4	2.3	2.2	2.0	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.3	1.3
Orthopedically handicapped	2.4	2.3	1.8	1.6	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.1	1.1
Other health impaired	3.8	3.6	2.7	2.6	2.4	1.9	1.2	1.2	1.6	1.3	1.2	1.0	1.0
Visually impaired	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5
Multihandicapped	—	—	1.3	1.5	1.6	1.7	1.5	1.5	1.6	2.0	2.2	1.7	1.8
Deaf-blind	—	—	0.1	(4)	0.1	(4)	(4)	0.1	(4)	(4)	(4)	(4)	(4)
Preschool[2]	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	8.2	8.7

Table 1:13-2 Elementary and secondary students served in federally supported education programs for the handicapped, by type of handicap: School years ending 1977–1989—Continued

Type of handicap	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
	Number served as percent of total enrollment[5]												
All conditions	8.3	8.6	9.1	9.6	10.1	10.5	10.7	10.9	11.0	10.9	11.0	11.1	11.3
Learning disabled	1.8	2.2	2.7	3.1	3.6	4.0	4.4	4.6	4.7	4.7	4.8	4.8	4.9
Speech impaired	2.9	2.8	2.9	2.9	2.9	2.8	2.9	2.9	2.9	2.9	2.9	2.4	2.4
Mentally retarded	2.2	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.8	1.7	1.6	1.5	1.4
Seriously emotionally disturbed	0.6	0.7	0.7	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9
Hard of hearing and deaf	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Orthopedically handicapped	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other health impaired	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Visually impaired	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Multihandicapped	—	—	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Deaf-blind	—	—	(6)	(6)	(6)	(6)	0.01	0.01	(6)	0.01	(6)	(6)	(6)
Preschool[2]	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	1.0	1.0

— Not available.

[1] Includes students served under Chapter I and Education of the Handicapped Act (EHA).

[2] Includes preschool children 3–5 years old served under the EHA and 0–5 years old served under Chapter I.

[3] Beginning in 1987–88, states were no longer required to report preschool handicapped students (0–5 years) by handicapping condition. Prior to this, these students were included in the overall counts by handicapping condition.

[4] Less than 0.05.

[5] Based on enrollment in public schools, kindergarten through 12th grade, including a relatively small number of prekindergarten students.

[6] Less than 0.005.

NOTE: Counts are based on reports from the 50 states and the District of Columbia only (i.e., figures from U.S. territories are not included). Some of the increases in 1987-88 may be due in part to new legislation passed in fall 1986 which mandates public school special education services for all handicapped children ages 3 through 5 by the 1990–91 school year and provides a state grant program for handicapped children from birth to age 2. Some data have been revised from previously published figures. Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, Annual Report to Congress on the Implementation of the Education of the Handicapped Act, various years; National Center for Education Statistics, Common Core of Data survey; and unpublished data.

Table 1:14-1 Percentage of high school graduates taking selected mathematics courses: 1982 and 1987

Mathematics courses	1982 High School and Beyond study	1987 Transcript study	Change from 1982 to 1987[1]
Any mathematics	97.4	99.4	[2]1.9
Algebra I	65.1	76.3	[2]11.1
Algebra II	35.1	47.1	[2]12.0
Geometry	45.7	61.5	[2]15.8
Trigonometry	12.0	19.0	[2]7.0
Analysis or pre-calculus	5.8	12.8	[2]7.0
Calculus	4.7	6.2	1.5
AP calculus	1.5	3.4	[2]1.9
Statistics or probability	0.3	0.4	0.0
Any remedial or below-grade math course	32.7	24.9	[2]-7.8
Algebra I and algebra II	26.6	38.6	[2]12.0
Algebra I and II and geometry	21.5	34.5	[2]13.0
Algebra I and II, geometry and trigonometry	4.9	10.2	[2]5.3
Algebra I and II, geometry, trigonometry and calculus	0.4	0.8	0.4
Algebra II and geometry	27.5	42.4	[2]14.9
Algebra II and geometry and trigonometry	7.2	14.7	[2]7.5
Trigonometry and calculus	1.0	2.4	[2]1.4

[1] Based on unrounded numbers.

[2] Difference between 1982 and 1987 graduates is statistically significant at the $p < .05$ level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript Study and the 1982 transcript component of the High School and Beyond study.

Table 1:14-2 Percentage of high school graduates taking selected science courses: 1982 and 1987

Science courses	1982 High School and Beyond study	1987 Transcript study	Change from 1982 to 1987[1]
Any science	95.2	98.7	[2]3.5
Biology	75.3	88.3	[2]13.1
AP/honors biology	6.6	2.8	[2]-3.8
Chemistry	30.8	44.8	[2]13.9
AP/honors chemistry	2.9	3.4	0.5
Physics	13.9	19.5	[2]5.6
AP/honors physics	1.1	1.7	0.6
Engineering	0.1	0.1	0.0
Geology	13.9	14.9	1.0
Astronomy	1.1	1.0	-0.1
Biology and chemistry	28.0	43.0	[2]15.0
Biology, chemistry, and physics	10.5	16.8	[2]6.2

[1] Based on unrounded numbers.

[2] Difference between 1982 and 1987 graduates is statistically significant at the $p < .05$ level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript Study and the 1982 transcript component of the High School and Beyond study.

Table 1:14-3 Percentage of high school graduates taking selected mathematics courses, by race/ethnicity: 1982 and 1987

Mathematics courses	1982 High School and Beyond study					1987 High School Transcript study				
	White	Black	Hispanic*	Asian	Other	White	Black	Hispanic*	Asian	Other
Any mathematics	97.7	97.8	95.5	99.3	96.7	99.3	99.5	99.4	100.0	99.4
Algebra I	68.1	57.5	55.1	66.2	50.8	77.7	70.7	73.1	68.5	78.0
Algebra II	37.7	24.2	20.8	56.4	21.2	51.9	32.4	30.2	67.1	28.4
Geometry	51.2	28.5	25.8	64.3	28.8	65.1	44.0	40.2	81.4	48.4
Trigonometry	13.6	6.0	6.4	28.2	4.3	20.9	10.9	9.9	42.1	6.5
Analysis or pre-calculus	6.7	2.2	3.0	13.7	1.2	13.5	5.1	7.4	39.6	7.5
Calculus	5.5	1.4	1.8	13.2	2.6	5.9	2.3	3.6	29.8	3.2
AP calculus	1.8	0.3	0.4	5.6	0.1	2.8	1.4	2.6	23.9	1.3
Statistics or probability	0.4	0.0	0.1	0.6	0.3	0.4	0.0	0.1	0.2	0.0
Any remedial or below-grade math course	27.5	53.2	47.0	19.4	47.7	20.6	46.5	42.5	16.3	40.7
Algebra I and algebra II	25.8	29.3	19.6	16.0	35.2	14.8	42.7	28.1	25.6	44.6
Algebra I and II and geometry)	24.3	13.8	10.8	29.8	12.6	38.4	24.8	20.6	41.3	21.5
Algebra I and II, geometry, trigonometry	5.6	2.0	3.2	7.7	1.2	12.0	5.4	4.9	18.2	2.4
Algebra I and II, geometry, trigonometry, calculus	0.5	0.2	0.1	0.5	0.0	0.8	0.3	0.5	4.2	0.3
Algebra II and geometry	31.3	16.1	13.2	41.6	15.9	47.0	28.6	24.3	62.4	23.5
Algebra II, geometry, and trigonometry	8.3	3.0	3.9	14.9	2.7	16.9	8.0	7.4	31.1	3.5
Algebra II, geometry, trigonometry, calculus	1.1	0.2	0.5	2.5	0.0	2.3	1.2	2.2	14.5	1.0

Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript Study and the 1982 transcript component of the High School and Beyond study.

Table 1:14-4 Percent change of high school graduates taking selected mathematics courses, by race/ethnicity: 1982 and 1987

Mathematics courses	White	Black	Hispanic[1]	Asian	Other
Any mathematics	[2]1.6	[2]1.7	[2]3.9	0.7	2.7
Algebra I	[2]9.6	[2]13.2	[2]18.2	2.2	[2]27.1
Algebra II	[2]13.1	[2]8.2	[2]9.4	[2]10.8	7.2
Geometry	[2]13.8	[2]15.5	[2]14.4	[2]17.1	[2]19.6
Trigonometry	[2]7.3	[2]4.9	[2]3.6	[2]14.0	2.2
Analysis or pre-calculus	[2]6.8	[2]2.9	[2]4.4	[2]25.9	[2]6.3
Calculus	0.3	0.9	[2]1.8	[2]16.6	0.6
AP calculus	1.0	[2]1.2	[2]2.1	[2]18.3	1.3
Statistics or probability	-0.0	-0.0	-0.0	-0.3	0.0
Any remedial or below-grade math course	[2]-6.9	[2]-6.7	[2]-4.5	-3.1	-6.9
Algebra I and algebra II	[2]13.4	[2]8.5	[2]9.6	[2]9.3	[2]11.0
Algebra I and II and geometry	[2]14.1	[2]11.0	[2]9.8	[2]11.5	8.9
Algebra I and II, geometry, trigonometry	[2]6.4	[2]3.4	[2]1.8	[2]10.4	1.1
Algebra I and II, geometry, trigonometry, calculus	0.0	0.4	0.3	[2]3.7	0.0
Algebra II and geometry	[2]15.7	[2]12.5	[2]11.1	20.8	7.6
Algebra II, geometry, and trigonometry	[2]8.6	[2]5.1	[2]3.5	[2]16.1	0.8
Algebra II, geometry, trigonometry, calculus	[2]1.2	[2]1.0	[2]1.7	[2]12.0	0.0

[1] Hispanics may be of any race.

[2] Difference between 1982 and 1987 graduates, by race/ethnicity, is statistically significant at the $p < .05$ level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript Study and the 1982 transcript component of the High School and Beyond study.

Table 1:14-5 Percent of high school graduates taking selected science courses, by race/ethnicity: 1982 and 1987

Science courses	1982 High School and Beyond study					1987 High School Transcript study				
	White	Black	Hispanic*	Asian	Other	White	Black	Hispanic*	Asian	Other
Any science	95.8	95.4	91.6	95.3	93.4	98.7	98.7	98.5	99.4	98.6
Biology	77.3	70.9	67.2	82.2	64.0	89.2	86.2	85.4	91.5	88.8
AP/honors biology	7.4	4.4	3.2	12.2	3.0	2.8	1.5	1.6	4.3	0.9
Chemistry	34.2	20.5	15.4	54.1	28.8	47.7	29.8	29.4	69.9	30.1
AP/honors chemistry	3.3	1.6	1.4	5.7	1.1	3.5	1.2	2.3	13.9	0.8
Physics	16.0	6.9	5.6	33.8	7.2	20.9	10.1	9.8	47.1	11.5
AP/honors physics	1.2	0.9	0.4	3.5	0.0	1.7	0.4	0.8	5.7	1.8
Engineering	0.2	0.1	0.1	0.0	0.0	0.0	0.4	0.1	0.4	0.0
Geology	14.8	10.2	11.2	11.3	14.3	14.4	18.8	11.8	13.3	13.4
Astronomy	1.3	0.4	0.5	0.0	0.0	0.9	0.3	0.8	0.7	0.7
Biology and chemistry	31.3	18.3	13.9	46.9	20.2	46.0	28.6	28.2	66.0	27.8
Biology, chemistry, and physics	12.1	4.6	3.9	27.3	6.4	17.9	8.8	8.2	42.4	8.4

* Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript Study and the 1982 transcript component of the High School and Beyond study.

Indicator 1:14

Table 1:14-6 Percent change of high school graduates taking selected science courses, by race/ethnicity: 1982 and 1987

Science courses	White	Black	Hispanic[1]	Asian	Other
Any science	[2]2.9	[2]3.3	[2]6.9	[2]4.1	[2]5.2[2]
Biology	[2]12.0	[2]15.3	[2]18.2	[2]9.3	[2]24.8
AP/honors biology	[2]-4.7	[2]-2.9	[2]-1.6	[2]-7.9	-2.1
Chemistry	[2]13.5	[2]9.3	[2]14.0	[2]18.5	1.3
AP/honors chemistry	0.2	-0.5	0.8	[2]8.2	-0.3
Physics	[2]4.9	[2]3.2	[2]4.3	[2]13.3	4.2
AP/honors physics	0.5	-0.5	0.4	2.2	0.0
Engineering	-0.1	0.3	0.0	0.0	0.0
Geology	-0.4	[2]8.6	0.6	2.0	-0.9
Astronomy	-0.4	-0.1	0.2	0.0	0.0
Biology and chemistry	[2]14.7	[2]10.3	[2]14.2	[2]19.1	7.7
Biology, chemistry, and physics	[2]5.8	[2]4.2	[2]4.3	[2]15.1	2.0

[1] Hispanics may be of any race.

[2] Difference between 1982 and 1987 graduates, by race/ethnicity, is statistically significant at the $p < .05$ level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript study and the 1982 transcript component of the High School and Beyond study.

Table 1:15-1 Percent of students who use computers in school, by family income and grade attending: October 1984 and 1989

	1984					1989				
		Family income quartile					Family income quartile			
Grade attending	Total	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th
Total	28.5	21.1	24.3	29.9	34.4	45.5	39.6	43.9	47.4	49.9
Pre-K	4.9	3.3	4.1	4.6	6.1	8.3	6.1	5.3	7.4	11.5
Full-day	4.8	1.6	7.4	3.0	5.7	11.6	8.1	4.7	11.6	16.9
Half-day	4.9	4.4	2.1	5.4	6.2	6.6	5.0	5.7	5.8	8.5
Kindergarten	6.7	1.9	4.8	8.1	11.8	20.3	13.2	18.4	24.7	25.8
Full-day	5.8	0.9	5.2	8.4	9.4	22.7	17.3	20.6	26.3	30.3
Half-day	7.3	2.7	4.6	7.9	13.0	18.7	9.6	16.9	23.7	23.6
Elementary	32.4	20.6	26.6	35.5	42.9	54.1	43.1	52.3	58.9	62.2
Grade 1	16.6	10.2	9.6	20.2	25.6	41.4	32.8	37.1	50.2	45.2
Grade 2	26.0	14.5	21.2	28.8	38.2	49.5	36.8	45.9	55.7	61.3
Grade 3	29.7	16.8	24.8	32.5	41.0	54.6	40.7	52.8	58.7	67.7
Grade 4	37.3	24.9	33.2	40.2	47.3	61.2	49.3	62.0	62.9	70.4
Grade 5	39.3	23.0	32.2	43.8	51.5	60.7	46.8	59.9	64.0	72.1
Grade 6	40.0	29.4	31.8	41.7	52.3	58.5	49.6	60.0	63.3	61.5
Grade 7	35.3	24.6	31.6	38.0	42.3	54.5	44.7	54.1	57.9	61.0
Grade 8	36.2	25.5	31.2	38.3	43.3	53.3	46.2	49.2	59.6	57.5
High school	28.1	20.8	26.0	28.4	32.3	43.0	40.5	41.3	42.9	46.2
Grade 9	24.4	19.8	22.0	25.9	26.5	40.6	38.6	40.8	41.9	40.9
Grade 10	24.9	22.3	22.9	25.1	27.0	42.7	42.3	39.7	42.7	45.2
Grade 11	29.7	18.4	29.4	30.7	33.4	41.8	41.1	37.1	41.4	45.9
Grade 12	34.4	22.4	29.9	32.5	43.7	46.9	40.4	46.9	45.6	52.0
College	31.7	33.8	28.3	31.0	32.9	44.4	45.9	41.0	42.8	46.7
1st year	24.8	21.2	22.6	24.4	27.4	36.9	32.7	33.8	34.6	43.4
2nd year	32.2	34.1	28.1	33.9	32.3	43.5	38.3	41.3	42.2	49.0
3rd year	35.0	37.9	29.1	34.6	36.9	47.3	48.3	40.3	50.1	48.9
4th year	38.3	38.9	35.4	34.0	41.6	53.1	52.5	46.3	51.2	58.2
5th year	32.5	30.8	26.6	31.4	36.8	43.8	60.1	45.1	36.8	37.0
6th year or greater	33.1	43.4	36.1	32.3	27.3	47.9	62.9	50.6	48.5	37.6

NOTE: The demarcations between family income quartiles were calculated on the basis of all persons in the survey.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey, unpublished tabulations.

Table 1:15-2 Standard errors for estimated percentages in table 1:15-1

	1984					1989				
		Family income quartile					Family income quartile			
Grade attending	Total	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th
Total	0.3	0.7	0.6	0.6	0.6	0.3	0.7	0.7	0.7	0.7
Pre-K	0.7	1.7	1.4	1.3	1.3	0.8	1.8	1.6	1.5	1.6
Full-day	1.2	1.9	3.1	1.9	2.3	1.7	3.4	2.6	3.4	3.2
Half-day	0.9	2.5	1.3	1.7	1.6	0.9	2.0	2.1	1.6	1.8
Kindergarten	0.7	0.8	1.1	1.4	1.9	1.1	1.7	2.0	2.3	2.4
Full-day	1.1	0.9	1.9	2.6	3.0	1.7	2.8	3.3	3.8	4.4
Half-day	0.9	1.3	1.4	1.6	2.4	1.3	2.1	2.6	2.8	2.9
Elementary	0.5	0.9	0.9	0.9	1.0	0.5	1.0	1.0	0.9	1.0
Grade 1	1.0	1.8	1.6	2.1	2.4	1.3	2.5	2.6	2.5	2.8
Grade 2	1.2	2.2	2.3	2.4	2.8	1.3	2.5	2.6	2.6	2.8
Grade 3	1.3	2.5	2.5	2.6	2.8	1.3	2.6	2.7	2.6	2.7
Grade 4	1.4	2.9	2.6	2.6	2.9	1.3	2.7	2.7	2.6	2.5
Grade 5	1.4	2.8	2.7	2.6	2.7	1.3	2.7	2.8	2.6	2.5
Grade 6	1.4	3.1	2.6	2.6	2.7	1.4	2.7	2.8	2.6	2.6
Grade 7	1.3	2.9	2.6	2.6	2.6	1.4	2.8	2.9	2.8	2.7
Grade 8	1.3	3.0	2.7	2.4	2.4	1.5	3.0	2.9	2.8	2.9
High school	0.6	1.5	1.3	1.2	1.1	0.7	1.6	1.5	1.4	1.4
Grade 9	1.2	2.8	2.5	2.2	2.0	1.4	2.9	3.0	2.8	2.8
Grade 10	1.2	3.0	2.5	2.3	2.1	1.5	3.1	3.2	2.7	2.9
Grade 11	1.3	3.1	2.8	2.5	2.3	1.5	3.6	3.1	2.9	2.7
Grade 12	1.4	3.3	2.8	2.5	2.5	1.5	3.2	3.0	2.9	2.6
College	0.7	1.8	1.6	1.4	1.1	0.7	1.6	1.7	1.5	1.3
1st year	1.3	3.4	2.7	2.4	2.0	1.4	3.1	3.1	2.7	2.6
2nd year	1.5	4.1	3.3	3.0	2.3	1.5	3.3	3.3	3.1	2.7
3rd year	1.7	4.6	3.8	3.3	2.7	1.8	3.9	3.8	3.6	3.1
4th year	1.9	4.2	4.8	3.9	3.1	1.9	3.8	4.5	4.2	3.2
5th year	2.4	6.2	5.3	4.5	4.0	2.5	5.0	6.5	4.8	4.2
6th year or greater	2.1	5.2	5.1	4.1	3.2	2.3	4.9	5.5	4.7	3.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey, unpublished tabulations.

Table 1:15-3 Percent of students (preprimary through college) who have a computer at home, and of those, percent who use the home computer and who use it for school assignments, by family income: October 1984 and 1989

Computer availability and use at home	1984					1989				
		Family income quartile					Family income quartile			
	Total	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th
Students with a computer at home	16.1	4.3	8.4	15.5	28.8	27.5	11.5	18.2	28.9	47.2
Students with a computer at home who:										
use it	72.9	72.8	71.6	74.2	72.6	72.8	72.0	71.7	73.1	73.2
use it for school assignments	29.3	30.3	28.3	26.8	30.6	34.7	39.9	29.3	33.7	35.9

NOTE: The demarcations between family income quartiles were calculated on the basis of all persons in the survey.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey, unpublished tabulations.

Table 1:15-4 Standard errors of estimated percentages in table 1:15-3

Computer availability and use at home	1984					1989				
		Family income quartile					Family income quartile			
	Total	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th
Students with a computer at home	0.2	0.3	0.4	0.4	0.5	0.3	0.5	0.6	0.6	0.7
Students with a computer at home who:										
use it	0.7	3.3	2.0	1.3	0.9	0.6	1.9	1.5	1.1	0.8
use it for school assignments	0.7	3.4	2.0	1.3	1.0	0.6	2.1	1.5	1.2	0.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey, unpublished tabulations.

Table 1:15-5 Percent of students (preprimary through college) who have a computer at home, and of those, percent who use the home computer and who use it for school, by grade level: October 1984 and 1989

	Percent of students with a computer at home		Percent of students with computers at home who:			
			Use it		Use it for school assignments	
Grade attending	1984	1989	1984	1989	1984	1989
Total	16.1	27.5	72.9	72.8	29.3	34.7
Preprimary	13.7	20.5	55.7	52.1	6.8	3.0
Elementary (1–8)	16.0	24.5	78.9	76.7	25.0	27.3
High school (9–12)	17.2	29.8	77.8	74.9	39.6	44.3
College	16.4	35.5	62.0	71.6	35.1	47.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey, unpublished tabulations.

Table 1:15-6 Standard errors of estimated percentages in table 1:15-5

	Percent of students with a computer at home		Percent of students with computers at home who:			
			Use it		Use it for school assignments	
Grade attending	1984	1989	1984	1989	1984	1989
Total	0.2	0.3	0.7	0.6	0.7	0.6
Preprimary	0.7	0.8	2.7	2.3	1.4	0.8
Elementary (1–8)	0.3	0.4	1.0	0.9	1.0	0.9
High school (9–12)	0.5	0.7	1.3	1.2	1.6	1.4
College	0.5	0.7	1.6	1.1	1.6	1.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, October 1984 and October 1989 supplements to the Current Population Survey, unpublished tabulations.

Table 1:16-1 Standard errors for estimated numbers and percentages in text table for Indicator 1:16

	Pre-K			Kindergarten		
	Number (in thousands)	Percent private	Percent full day	Number (in thousands)	Percent private	Percent full day
1969	35	1.9	1.7	69	0.9	0.7
1970	40	1.7	1.5	68	0.8	0.7
1971	39	1.7	1.5	69	0.8	0.7
1972	43	1.6	1.4	68	0.8	0.8
1973	44	1.5	1.4	67	0.8	0.9
1974	48	1.3	1.3	69	0.8	0.8
1975	51	1.4	1.3	70	0.8	0.9
1976	47	1.4	1.3	71	0.7	0.9
1977	49	1.4	1.3	68	0.8	1.0
1978	52	1.3	1.2	66	0.8	1.0
1979	52	1.3	1.2	66	0.8	1.0
1980	54	1.3	1.2	68	0.8	1.0
1981	55	1.2	1.1	68	0.8	1.0
1982	65	1.4	1.3	80	0.9	1.1
1983	67	1.4	1.2	81	1.0	1.1
1984	67	1.3	1.2	82	0.8	1.1
1985	69	1.3	1.2	86	0.8	1.1
1986	70	1.3	1.2	88	0.8	1.1
1987	71	1.3	1.2	88	0.8	1.1
1988	85	1.7	1.4	95	0.9	1.3
1989	88	1.7	1.3	94	1.0	1.3

NOTE: Pre-K and Kindergarten enrollment does not include those below 3 years of age.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Educational Attainment in the United States...," various years.

Indicator 1:17

Table 1:17-1 Enrollment in kindergarten through grade 8 (K–8) and grades 9–12 of public and private elementary and secondary schools, with projections: Fall 1970 to fall 2001 (in thousands)

	Public schools			Private schools		
Year	Grades K–12[1]	Grades K–8[1]	Grades 9–12	Grades K–12[1]	Grades K–8[1]	Grades 9–12
1970	45,909	32,577	13,332	5,363	4,052	1,311
1971	46,081	32,265	13,816	[2] 5,200	3,900	1,300
1972	45,744	31,831	13,913	[2] 5,200	3,700	1,300
1973	45,429	31,353	14,077	[2] 5,200	3,700	1,300
1974	45,053	30,921	14,132	[2] 5,200	3,700	1,300
1975	44,791	30,487	14,304	[2] 5,200	3,700	1,300
1976	44,317	30,006	14,311	5,167	3,825	1,342
1977	43,577	29,336	14,240	5,140	3,797	1,343
1978	42,550	28,328	14,223	5,086	3,732	1,353
1979	41,645	27,931	13,714	[2] 5,000	3,700	1,300
1980	40,918	27,677	13,242	5,331	3,992	1,339
1981	40,022	27,270	12,752	[2] 5,500	4,100	1,400
1982	39,566	27,158	12,407	[2] 5,600	4,200	1,400
1983	39,252	26,979	12,274	5,715	4,315	1,400
1984	39,208	26,901	12,308	[2] 5,700	4,300	1,400
1985	39,422	27,030	12,392	5,557	4,195	1,362
1986	39,753	27,419	12,334	[2] 5,452	4,116	1,336
1987	40,008	27,930	12,078	[2] 5,479	4,232	1,247
1988	40,192	28,501	11,692	[3] 5,241	4,036	1,206
1989[3]	40,608	29,147	11,461	[3] 5,355	4,162	1,193
			Projected			
1990	40,801	29,546	11,255	5,391	4,219	1,172
1991	41,387	30,006	11,381	5,469	4,285	1,185
1992	41,997	30,432	11,574	5,549	4,344	1,205
1993	42,602	30,732	11,870	5,624	4,388	1,236
1994	43,214	30,930	12,284	5,695	4,417	1,279
1995	43,682	31,061	12,621	5,749	4,435	1,314
1996	44,054	31,104	12,950	5,789	4,441	1,348
1997	44,269	31,094	13,175	5,811	4,440	1,371
1998	44,319	31,098	13,221	5,817	4,441	1,376
1999	44,299	30,939	13,432	5,809	4,418	1,391
2000	44,186	30,754	13,494	5,790	4,391	1,398
2001	44,022	30,528	13,494	5,764	4,359	1,405

[1] Includes most kindergarten and some nursery school enrollment.

[2] Estimated by NCES.

[3] Early estimate.

NOTE: Some data have been revised from previously published figures. Projections are based on data through 1988. Because of rounding, details might not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2001*; Common Core of Data.

Table 1:17-2 Standard errors for projected numbers in table 1:17-1 (in thousands)

	Public schools			Private schools		
Year	Grades K–12*	Grades K–8*	Grades 9–12	Grades K–12*	Grades K–8*	Grades 9–12
1990	119	98	79	120	—	—
1991	168	139	112	122	—	—
1992	206	170	137	125	—	—
1993	238	196	158	128	—	—
1994	266	219	177	130	—	—
1995	291	240	194	133	—	—
1996	315	259	209	135	—	—
1997	337	277	223	146	—	—
1998	357	294	237	137	—	—
1999	376	310	250	138	—	—
2000	395	325	262	139	—	—
2001	412	339	274	139	—	—

— Not available.

* Includes most kindergarten and some prekindergarten enrollment.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2001*.

Table 1:19-1 Children under 18 in poverty, by race/ethnicity and family status: Selected years 1960–1988

Race/ Year	All families			Children with female householder[1]			Percent of all children in poverty in families with female householder[1]
	Number of children under 18	Number of children under 18 in poverty	Percent of children in poverty	Number of children under 18	Number of children under 18 in poverty	Percent of children in poverty	
All races	(In thousands)			(In thousands)			
1960	65,275	17,228	26.5	5,987	4,095	68.4	23.7
1965	69,638	14,388	20.7	7,106	4,562	64.2	31.7
1970	68,815	10,235	14.9	8,847	4,689	53.0	45.8
1975	64,750	10,882	16.8	10,620	5,597	52.7	51.4
1980	62,168	11,114	17.9	11,547	5,866	50.8	52.8
1981	61,756	12,068	19.5	12,059	6,305	52.3	52.2
1982	61,565	13,139	21.3	—	—	—	—
1983	61,578	13,427	21.8	12,100	6,709	55.4	50.0
1984	61,681	12,929	21.0	12,536	6,772	54.0	52.4
1985	62,019	12,483	20.1	12,530	6,716	53.6	53.8
1986	62,009	12,257	19.8	12,763	6,943	54.4	56.6
1987	62,305	12,435	20.0	12,931	7,074	54.7	56.9
1988[2]	62,892	12,058	19.2	13,312	7,082	53.2	58.7
White[3]							
1960	56,145	11,229	20.0	3,935	2,357	59.9	21.0
1965	59,688	8,595	14.4	4,388	2,321	52.9	27.0
1970	58,472	6,138	10.5	5,213	2,247	43.1	36.6
1975	54,126	6,748	12.5	6,364	2,813	44.2	41.7
1980	51,002	6,817	13.4	6,762	2,813	41.6	41.3
1981	50,553	7,429	14.7	7,299	3,120	42.7	42.0
1982	50,305	8,282	16.5	—	—	—	—
1983	50,183	8,534	17.0	7,149	3,356	46.9	39.3
1984	50,192	8,086	16.1	7,352	3,377	45.9	41.8
1985	50,358	7,838	15.6	7,464	3,372	45.2	43.0
1986	50,356	7,714	15.3	7,602	3,522	46.3	45.7
1987	50,373	7,550	15.0	7,577	3,474	45.8	46.0
1988[2]	50,582	7,140	14.1	7,871	3,550	45.1	49.7

Table 1:19-1 Children under 18 in poverty, by race/ethnicity and family status: Selected years 1960–1988—Continued

	All families			Children with female householder[1]			Percent of all children in poverty in families with female householder[1]
Race/ Year	Number of children under 18	Number of children under 18 in poverty	Percent of children in poverty	Number of children under 18	Number of children under 18 in poverty	Percent of children in poverty	
Black[3]		(In thousands)			(In thousands)		
1959	7,667	5,022	65.5	1,808	1,475	81.6	29.4
1967	9,616	4,558	47.4	3,128	2,265	72.4	49.7
1970	9,448	3,922	41.5	3,520	2,383	67.7	60.8
1975	9,374	3,884	41.4	4,127	2,724	66.0	70.1
1980	9,287	3,906	42.1	4,543	2,944	64.8	75.4
1981	9,291	4,107	44.2	4,507	3,051	67.7	74.3
1982	9,269	4,388	47.3	—	—	—	—
1983	9,245	4,273	46.2	4,652	3,185	68.5	74.5
1984	9,356	4,320	46.2	4,884	3,234	66.2	74.9
1985	9,405	4,057	43.1	4,756	3,181	66.9	78.4
1986	9,467	4,037	42.6	4,845	3,251	67.1	80.5
1987	9,520	4,297	45.1	4,971	3,394	68.3	79.0
1988[2]	9,677	4,213	43.5	5,063	3,301	65.2	78.4
Hispanic[4]							
1973	4,910	1,364	27.8	882	606	68.7	44.4
1975	4,896	1,691	34.5	1,015	694	68.4	42.9
1980	5,211	1,718	33.0	1,806	809	44.8	47.1
1981	5,291	1,874	35.4	1,351	909	67.3	48.5
1982	5,436	2,117	38.9	—	—	—	—
1983	5,977	2,251	37.7	1,354	956	70.6	42.5
1984	5,982	2,317	38.7	1,541	1,093	70.9	47.2
1985	6,346	2,512	39.6	1,721	1,247	72.5	49.6
1986	6,511	2,413	37.1	1,791	1,194	66.7	49.5
1987	6,690	2,631	39.3	1,771	1,241	70.1	47.2
1988[2]	6,907	2,598	37.6	1,844	1,265	68.6	48.7

— Not available.

[1] No husband present. The householder is the person in whose name the housing unit is owned or rented.

[2] Estimated.

[3] Includes persons of Hispanic origin.

[4] Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-60, "Poverty in the United States: . . .," various years.

Table 1:19-2 Standard errors for estimated numbers and percentages in table 1:19-1

	All families			Children with female householder[1]			
Race/ Year	Number of children under 18	Number of children under 18 in poverty	Percent of children in poverty	Number of children under 18	Number of children under 18 in poverty	Percent of children in poverty	Percent of all children in poverty in families with female householder[1]
All races	(In thousands)			(In thousands)			
1960	—	277	0.4	188	159	1.6	0.8
1965	—	263	0.4	202	167	1.5	1.0
1970	—	234	0.4	221	169	1.4	1.3
1975	—	239	0.4	237	182	1.3	1.2
1980	—	241	0.4	245	186	1.2	1.2
1981	—	249	0.4	248	192	1.2	1.2
1982	—	256	0.4	—	—	—	—
1983	—	258	0.4	249	197	1.2	1.1
1984	—	254	0.4	252	198	1.1	1.1
1985	—	251	0.4	252	197	1.2	1.2
1986	—	250	0.4	253	200	1.1	1.2
1987	—	251	0.4	254	201	1.1	1.1
1988[2]	—	248	0.4	257	202	1.1	1.2
White[3]							
1960	—	242	0.4	156	122	2.0	1.0
1965	—	219	0.4	164	122	1.9	1.2
1970	—	190	0.3	177	120	1.8	1.6
1975	—	198	0.4	193	133	1.6	1.5
1980	—	199	0.4	198	133	1.5	1.5
1981	—	206	0.4	204	140	1.5	1.5
1982	—	215	0.4	—	—	—	—
1983	—	218	0.4	203	145	1.5	1.4
1984	—	213	0.4	205	145	1.5	1.4
1985	—	211	0.4	206	145	1.5	1.4
1986	—	209	0.4	208	148	1.5	1.5
1987	—	207	0.4	208	147	1.5	1.5
1988[2]	—	203	0.4	211	148	1.4	1.5

Table 1:19-2 Standard errors for estimated numbers and percentages in table 1:19-1 — Continued

Race/ Year	All families: Number of children under 18	All families: Number of children under 18 in poverty	All families: Percent of children in poverty	Children with female householder[1]: Number of children under 18	Children with female householder[1]: Number of children under 18 in poverty	Children with female householder[1]: Percent of children in poverty	Percent of all children in poverty in families with female householder[1]
Black[3]	(In thousands)			(In thousands)			
1960	—	129	1.4	99	91	2.4	1.7
1965	—	128	1.3	119	108	2.1	1.9
1970	—	126	1.3	123	110	2.0	2.0
1975	—	126	1.3	127	115	1.9	1.9
1980	—	126	1.3	128	117	1.8	1.8
1981	—	127	1.3	128	119	1.8	1.8
1982	—	128	1.3	—	—	—	—
1983	—	127	1.3	128	120	1.8	1.7
1984	—	128	1.3	129	121	1.7	1.7
1985	—	126	1.3	128	120	1.8	1.7
1986	—	126	1.3	129	121	1.7	1.6
1987	—	127	1.3	129	122	1.7	1.6
1988[2]	—	127	1.3	129	121	1.7	1.6
Hispanic[4]							
1973	—	169	3.0	60	73	4.6	1.7
1975	—	169	2.8	65	78	4.3	1.7
1980	—	174	2.8	70	104	4.3	1.7
1981	—	175	2.7	74	90	3.8	1.7
1982	—	177	2.6	—	—	—	—
1983	—	185	2.5	76	90	3.6	1.6
1984	—	185	2.5	81	96	3.4	1.6
1985	—	191	2.4	86	101	3.1	1.5
1986	—	193	2.4	85	103	3.4	1.5
1987	—	195	2.3	86	103	3.2	1.5
1988[2]	—	198	2.3	87	105	3.2	1.5

— Not available.

[1] No husband present. The householder is the person in whose name the housing unit is owned or rented.

[2] Estimated.

[3] Includes persons of Hispanic origin.

[4] Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-60, "Poverty in the United States: . . .," various years.

Table 1:20-1 Percent of high school students 16–24 years old who are employed, by sex and employment status: 1970–1990

Year	Male employed			Female employed		
	Total	Full time*	Part time	Total	Full time*	Part time
1970	30.9	3.7	27.2	27.3	1.7	25.6
1971	29.8	2.9	26.9	26.1	1.3	24.8
1972	32.0	4.1	27.9	27.5	1.7	25.8
1973	35.0	5.0	30.0	31.5	1.8	29.7
1974	33.6	4.6	29.0	30.9	2.0	28.9
1975	30.0	3.5	26.4	30.2	2.1	28.1
1976	31.1	3.5	27.6	30.4	1.6	28.8
1977	35.4	4.1	31.3	31.2	2.1	29.1
1978	35.6	4.0	31.5	35.4	2.3	33.1
1979	35.4	3.6	31.8	35.5	2.3	33.2
1980	32.5	2.9	29.7	33.2	1.7	31.5
1981	31.2	2.5	28.6	29.5	1.5	28.0
1982	25.7	1.7	24.0	29.0	1.3	27.7
1983	26.1	2.4	23.7	28.2	1.6	26.6
1984	29.4	2.3	27.2	30.1	0.9	29.2
1985	29.8	2.1	27.7	30.6	1.0	29.6
1986	30.9	2.4	28.5	34.6	1.3	33.3
1987	33.6	2.5	31.1	35.4	1.6	33.8
1988	34.6	2.9	31.7	35.7	1.5	34.2
1989	36.9	3.7	33.2	38.7	1.6	37.1
1990	32.7	3.6	29.1	31.5	2.1	29.4

* 35 or more hours per week.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, *Employment and Earnings*, and unpublished tabulations.

Table 1:20-2 Percent of high school students 16–24 years old who are employed, by race and employment status: 1970–1990

Year	White employed			Black employed			Hispanic[1] employed		
	Total	Full time[2]	Part time	Total	Full time[2]	Part time	Total	Full time[2]	Part time
1970	31.6	2.8	28.8	15.3	2.5	12.8	—	—	—
1971	31.0	2.1	28.9	12.9	2.4	10.6	—	—	—
1972	33.3	3.1	30.3	11.5	2.6	8.9	—	—	—
1973	36.9	3.7	33.2	14.1	2.1	12.0	—	—	—
1974	35.6	3.6	32.0	16.1	2.1	14.0	—	—	—
1975	33.6	3.2	30.4	12.9	1.3	11.7	—	—	—
1976	34.8	2.7	32.1	12.1	2.4	9.7	—	—	—
1977	37.8	3.5	34.4	13.4	1.8	11.7	25.0	—	—
1978	39.8	3.5	36.2	16.3	1.8	14.5	28.8	—	—
1979	40.0	3.3	36.8	13.5	1.6	12.0	—	—	—
1980	37.0	2.4	34.6	13.1	2.0	11.2	24.5	—	—
1981	34.8	2.1	32.6	10.9	1.5	9.4	23.0	—	—
1982	31.4	1.9	29.5	8.6	0.1	8.6	14.7	—	—
1983	31.7	2.4	29.3	6.7	0.6	6.2	21.1	—	—
1984	33.7	1.8	31.8	13.3	0.8	12.4	23.0	—	—
1985	34.0	1.8	32.2	14.5	0.8	13.7	16.8	—	—
1986	36.9	2.1	34.8	14.2	0.9	13.3	25.6	—	—
1987	38.8	2.2	36.6	17.5	1.8	15.7	29.0	6.6	22.3
1988	38.9	2.3	36.6	19.3	1.5	17.7	23.7	2.7	20.9
1989	41.8	2.8	39.0	20.3	1.8	18.5	21.6	3.0	18.6
1990	36.3	3.1	33.2	16.8	1.3	15.5	24.8	5.2	19.5

[1] Hispanics may be of any race.

[2] 35 or more hours per week.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, *Employment and Earnings*, and unpublished tabulations.

Table 1:20-3 Standard errors for estimated percentages in table 1:20-1

Year	Male employed			Female employed		
	Total	Full time	Part time	Total	Full time	Part time
1970	1.0	0.4	1.0	1.1	0.3	1.0
1971	1.0	0.4	1.0	1.0	0.3	1.0
1972	1.0	0.4	1.0	1.0	0.3	1.0
1973	1.0	0.5	1.0	1.1	0.3	1.1
1974	1.0	0.5	1.0	1.1	0.3	1.0
1975	1.0	0.4	0.9	1.0	0.3	1.0
1976	1.0	0.4	1.0	1.0	0.3	1.0
1977	1.0	0.4	1.0	1.0	0.3	1.0
1978	1.0	0.4	1.0	1.1	0.3	1.1
1979	1.0	0.4	1.0	1.1	0.3	1.1
1980	1.0	0.4	1.0	1.1	0.3	1.1
1981	1.0	0.3	1.0	1.0	0.3	1.0
1982	1.0	0.3	0.9	1.1	0.3	1.0
1983	1.0	0.3	0.9	1.1	0.3	1.0
1984	1.0	0.3	1.0	1.1	0.2	1.1
1985	1.0	0.3	1.0	1.1	0.2	1.1
1986	1.0	0.3	1.0	1.1	0.3	1.1
1987	1.0	0.3	1.0	1.1	0.3	1.1
1988	1.1	0.4	1.0	1.2	0.3	1.1
1989	1.1	0.4	1.1	1.2	0.3	1.2
1990	1.1	0.4	1.1	1.1	0.3	1.1

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, *Employment and Earnings*, and unpublished tabulations.

Table 1:20-4 Standard errors for estimated percentages in table 1:20-2

Year	White employed			Black employed			Hispanic[1] employed		
	Total	Full time[2]	Part time	Total	Full time[2]	Part time	Total	Full time[2]	Part time
1970	0.8	0.3	0.8	1.6	0.7	1.5	—	—	—
1971	0.8	0.3	0.8	1.5	0.7	1.3	—	—	—
1972	0.8	0.3	0.8	1.4	0.7	1.2	—	—	—
1973	0.8	0.3	0.8	1.5	0.6	1.4	—	—	—
1974	0.8	0.3	0.8	1.5	0.6	1.4	—	—	—
1975	0.8	0.3	0.8	1.4	0.5	1.3	—	—	—
1976	0.8	0.3	0.8	1.3	0.6	1.2	—	—	—
1977	0.8	0.3	0.8	1.3	0.5	1.3	2.8	—	—
1978	0.8	0.3	0.8	1.5	0.5	1.4	3.1	—	—
1979	0.9	0.3	0.8	1.4	0.5	1.4	—	—	—
1980	0.8	0.3	0.8	1.4	0.6	1.3	2.7	—	—
1981	0.8	0.3	0.8	1.3	0.5	1.2	2.5	—	—
1982	0.9	0.3	0.9	1.3	0.1	1.3	2.3	—	—
1983	0.9	0.3	0.9	1.1	0.3	1.1	2.6	—	—
1984	0.9	0.3	0.9	1.6	0.4	1.5	2.8	—	—
1985	0.9	0.3	0.9	1.6	0.4	1.6	2.3	—	—
1986	0.9	0.3	0.9	1.6	0.4	1.6	2.6	—	—
1987	0.9	0.3	0.9	1.7	0.6	1.6	2.8	1.5	2.5
1988	1.1	0.3	1.0	2.0	0.6	1.9	3.0	1.1	2.8
1989	1.1	0.4	1.1	2.0	0.7	1.9	2.7	1.1	2.6
1990	1.1	0.4	1.0	1.9	0.6	1.8	2.7	1.4	2.5

[1] Hispanics may be of any race.

[2] 35 or more hours per week.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, *Employment and Earnings*, and unpublished tabulations.

Table 1:20-5 Distribution of hours worked among working high school students 16–24 years old, by sex: Selected years 1974–1989

(Percent)

Year	Total	Hours worked per week 1–9 hours	10–14 hours	15–19 hours	20–24 hours	25–29 hours	30–34 hours	35 or more hours
				Both sexes				
1974	100.0	23.4	14.7	18.1	20.8	7.3	6.7	9.0
1975	100.0	24.3	17.4	17.8	18.5	7.3	6.2	8.4
1978	100.0	21.6	16.2	18.9	20.8	8.3	6.4	7.8
1979	100.0	20.3	15.8	20.2	22.3	7.5	6.7	7.2
1988	100.0	20.2	19.1	19.3	22.5	8.5	5.6	4.8
1989	100.0	19.7	20.0	20.0	21.5	7.7	5.8	5.3
				Males				
1974	100.0	20.1	13.9	16.6	21.9	9.0	6.9	11.6
1975	100.0	22.1	15.1	16.3	19.0	8.9	7.0	11.6
1978	100.0	17.6	14.4	18.6	22.0	9.6	7.7	10.1
1979	100.0	18.1	13.4	19.1	22.7	9.8	7.9	9.0
1988	100.0	18.9	14.8	17.0	24.7	10.6	7.1	6.8
1989	100.0	17.8	17.2	19.2	21.9	9.0	7.0	7.9
				Females				
1974	100.0	27.7	15.7	20.1	19.3	5.2	6.5	5.5
1975	100.0	27.1	20.4	19.7	17.8	5.4	5.3	4.4
1978	100.0	26.3	18.3	19.4	19.3	6.9	4.8	5.1
1979	100.0	22.9	18.8	21.5	21.8	4.7	5.2	5.1
1988	100.0	21.6	24.0	21.8	20.0	6.2	3.8	2.5
1989	100.0	21.8	23.0	20.8	21.2	6.3	4.5	2.5

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 1:20-6 Distribution of hours worked among working high school students 16–24 years old, by race/ethnicity: Selected years 1974–1989

(Percent)

Year	Total	Hours worked per week						
		1–9 hours	10–14 hours	15–19 hours	20–24 hours	25–29 hours	30–34 hours	35 or more hours
White								
1974	100.0	23.6	14.7	18.3	20.9	7.3	6.3	8.9
1975	100.0	24.3	17.4	17.5	18.3	7.7	6.3	8.5
1978	100.0	22.0	15.6	18.8	20.9	8.6	6.5	7.7
1979	100.0	20.6	15.6	19.5	22.6	7.6	7.1	6.9
1988	100.0	20.1	19.3	19.9	22.0	8.6	5.5	4.5
1989	100.0	20.3	19.6	19.4	22.5	7.2	6.0	5.0
Black								
1974	100.0	19.6	15.2	16.2	19.3	7.5	10.5	11.6
1975	100.0	26.3	16.0	20.6	20.9	2.2	6.3	7.6
1978	100.0	15.2	23.9	19.7	21.0	6.1	5.3	8.8
1979	100.0	14.7	16.9	31.5	19.0	5.9	1.6	10.4
1988	100.0	23.8	18.6	12.5	26.4	6.7	6.5	5.6
1989	100.0	13.6	24.0	22.7	16.4	12.3	5.1	5.8
Hispanic*								
1974	100.0	21.4	11.5	20.0	19.8	8.8	6.1	12.3
1975	100.0	17.1	15.5	18.8	18.1	3.0	12.0	15.4
1978	100.0	12.7	15.6	14.3	25.5	12.7	7.6	11.6
1979	100.0	9.3	21.1	16.4	22.6	5.4	9.1	16.0
1988	100.0	17.4	22.2	14.9	9.8	16.0	7.7	12.0
1989	100.0	8.5	13.4	16.8	24.0	10.9	7.1	19.4

* Hispanics may be of any race

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 1:20-7 Standard errors for estimated percentages in table 1:20-5

Year	Hours worked per week						
	1–9 hours	10–14 hours	15–19 hours	20–24 hours	25–29 hours	30–34 hours	35 or more hours
				Both sexes			
1974	1.2	1.0	1.1	1.2	0.8	0.7	0.8
1975	1.3	1.1	1.1	1.2	0.8	0.7	0.8
1978	1.1	1.0	1.1	1.1	0.8	0.7	0.7
1979	1.1	1.0	1.1	1.2	0.7	0.7	0.7
1988	1.3	1.3	1.3	1.4	0.9	0.8	0.7
1989	1.3	1.3	1.3	1.3	0.9	0.8	0.7
				Male			
1974	1.6	1.3	1.4	1.6	1.1	1.0	1.2
1975	1.7	1.4	1.5	1.6	1.1	1.0	1.3
1978	1.4	1.3	1.5	1.6	1.1	1.0	1.1
1979	1.5	1.3	1.5	1.6	1.1	1.0	1.1
1988	1.8	1.6	1.7	1.9	1.4	1.2	1.1
1989	1.7	1.7	1.8	1.9	1.3	1.1	1.2
				Female			
1974	2.0	1.6	1.8	1.8	1.0	1.1	1.0
1975	2.0	1.8	1.8	1.7	1.0	1.0	0.9
1978	1.8	1.6	1.6	1.6	1.0	0.9	0.9
1979	1.8	1.6	1.7	1.7	0.9	0.9	0.9
1988	2.0	2.0	2.0	1.9	1.2	0.9	0.8
1989	1.9	2.0	1.9	1.9	1.1	1.0	0.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 1:20-8 Standard errors for estimated percentages in table 1:20-6

Year	Hours worked per week						
	1–9 hours	10–14 hours	15–19 hours	20–24 hours	25–29 hours	30–34 hours	35 or more hours
				White			
1974	1.3	1.1	1.2	1.2	0.8	0.7	0.9
1975	1.3	1.2	1.2	1.2	0.8	0.8	0.9
1978	1.2	1.1	1.1	1.2	0.8	0.7	0.8
1979	1.2	1.1	1.2	1.2	0.8	0.7	0.7
1988	1.4	1.4	1.4	1.5	1.0	0.8	0.7
1989	1.4	1.4	1.4	1.4	0.9	0.8	0.8
				Black			
1974	4.6	4.2	4.3	4.6	3.1	3.6	3.7
1975	5.8	4.8	5.3	5.3	1.9	3.2	3.5
1978	4.0	4.8	4.5	4.6	2.7	2.5	3.2
1979	4.4	4.6	5.7	4.8	2.9	1.6	3.8
1988	4.9	4.5	3.8	5.1	2.9	2.8	2.7
1989	3.7	4.7	4.6	4.0	3.6	2.4	2.6
				Hispanic*			
1974	6.4	5.0	6.3	6.2	4.4	3.7	5.1
1975	5.8	5.5	6.0	5.9	2.6	5.0	5.5
1978	4.7	5.1	4.9	6.1	4.7	3.7	4.5
1979	4.7	6.6	6.0	6.7	3.6	4.6	5.9
1988	5.7	6.2	5.3	4.4	5.5	4.0	4.9
1989	3.5	4.3	4.7	5.4	3.9	3.2	5.0

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 1:21-1 Standard errors for estimated percentages in text table for indicator 1:21

Race/ ethnicity	Risk factors						Percent with factors			
	Parent is single	Parents have no high school diploma	Limited English proficiency	Income less than $15,000	Sibling has dropped out of school	Home alone more than 3 hours per day	Zero	One	Two	Three or more
Total	0.4	0.4	0.2	0.6	0.3	0.3	0.7	0.4	0.4	0.3
White	0.4	0.3	0.1	0.5	0.3	0.3	0.6	0.4	0.4	0.2
Black	1.1	1.0	0.5	1.5	0.7	0.8	1.2	0.9	0.9	1.0
Hispanic*	1.1	1.7	1.0	1.8	0.9	0.1	1.4	1.1	1.0	1.2
Asian/Pacific Islander	1.2	1.0	1.0	1.6	0.8	1.1	1.8	1.4	1.1	0.9
American Indian	3.6	2.2	4.9	5.1	3.1	2.8	4.2	3.4	3.4	3.3

* Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Educational Longitudinal Study of 1988, base year survey; *A Profile of the American Eighth Grader*, and unpublished tabulations.

Indicator 1:22

Table 1:22-1 Percent of eighth grade *students* who consider drug and alcohol usage to be serious school problems: 1988

		Race/ethnicity					Sex	
Problem	Total	White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian	Male	Female
Student alcohol use	15.3	15.1	16.1	15.0	16.1	19.9	14.3	16.3
Student drug use	14.2	13.3	16.3	16.5	16.5	20.0	13.2	15.2

	School poverty status[2]		School type			
Problem	High poverty school	Low poverty school	Public	Catholic	Inde-pendent	Other private
Student alcohol use	15.6	15.3	16.2	8.5	17.7	5.7
Student drug use	15.4	14.0	15.0	8.2	14.2	6.0

[1] Hispanics may be of any race.

[2] For this indicator, high poverty schools are defined as schools in which 50 percent or more of students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Educational Longitudinal Study of 1988, base year survey, 1988; unpublished tabulations.

Table 1:22-2 Percent of eighth grade *teachers* who consider drug and alcohol usage to be serious school problems: 1988

		Race/ethnicity					Sex	
Problem	Total	White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian	Male	Female
Student alcohol use	7.5	7.6	7.0	4.7	[2]0	17.3	7.2	7.7
Student drug use	6.2	5.5	11.1	5.3	3.9	19.2	6.0	6.4

	School poverty status[3]		School type	
	High poverty school	Low poverty school	Public	Catholic
Student alcohol use	6.6	8.1	9.3	1.1
Student drug use	10.8	5.7	7.5	0.9

[1] Hispanics may be of any race.

[2] No Asian/Pacific Islander eighth-grade teachers indicated that student alcohol use was a "serious" problem in the school where they taught.

[3] For this indicator, high poverty schools are defined as schools in which 50 percent or more of students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, base year survey, 1987–1988; unpublished tabulations.

Table 1:22-3 Percent of eighth grade *students* offered drugs at school during one semester, by various student and school characteristics: 1988

		Race/ethnicity					Sex	
Frequency	Total	White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian	Male	Female
Never	90.0	90.1	92.4	85.7	95.2	83.6	87.8	92.0
Once or twice	6.9	6.9	5.8	8.9	3.5	11.3	8.1	5.7
More than twice	3.1	3.1	1.8	5.3	1.3	5.1	4.0	2.2

	School poverty status[2]		School type			
Frequency	High poverty school	Low poverty school	Public	Catholic	Inde-pendent	Other private
Never	89.0	90.1	89.0	97.5	95.0	97.2
Once or twice	7.8	6.8	7.6	1.6	3.2	1.8
More than twice	3.2	3.1	3.4	0.9	1.8	1.0

[1] Hispanics may be of any race.

[2] For this indicator, high poverty schools are defined as schools in which 50 percent or more of students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Educational Longitudinal Study of 1988, base year survey, 1988; unpublished tabulations.

Table 1:22-4 Standard errors for estimated percentages in table 1:22-1

Problem	Total	Race/ethnicity					Sex	
		White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian	Male	Female
Student alcohol use	0.3	0.4	0.9	0.9	1.2	2.5	0.5	0.5
Student drug use	0.3	0.4	0.8	0.9	1.2	2.5	0.4	0.4

Problem	School poverty status[2]		School type			
	High poverty school	Low poverty school	Public	Catholic	Inde-pendent	Other private
Student alcohol use	0.8	0.4	0.4	0.7	2.8	0.9
Student drug use	0.9	0.4	0.4	0.5	1.3	1.0

[1] Hispanics may be of any race.

[2] For this indicator, high poverty schools are defined as schools in which 50 percent or more of students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Educational Longitudinal Study of 1988, base year survey, 1988; unpublished tabulations.

Table 1:22-5 Standard errors for estimated percentages in table 1:22-2

Situation	Total	Race/ethnicity					Sex	
		White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian	Male	Female
Student alcohol use	0.8	0.8	2.8	2.3	[2]0	8.8	1.5	0.8
Student drug use	0.6	0.6	3.7	2.5	2.3	8.8	1.4	0.7

	School poverty status[3]		School type	
	High poverty school	Low poverty school	Public	Catholic
Student alcohol use	1.6	0.9	1.0	1.1
Student drug use	2.2	0.7	0.8	0.9

[1] Hispanics may be of any race.

[2] No Asian/Pacific Islander eighth-grade teachers indicated that student alcohol use was a "serious" problem in the school where they taught.

[3] For this indicator, high poverty schools are defined as schools in which 50 percent or more of students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, base year survey, 1987–1988; unpublished tabulations.

Table 1:22-6 Standard errors for estimated percentages in table 1:22-3

Percent of eighth grade students offered drugs at school: 1988

Frequency	Total	Race/ethnicity					Sex	
		White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian	Male	Female
Never	0.3	0.3	0.6	0.8	0.7	2.1	0.4	0.3
Once or twice	0.2	0.3	0.5	0.5	0.6	1.7	0.3	0.3
More than twice	0.1	0.2	0.3	0.5	0.4	1.2	0.2	0.2

Frequency	School poverty status[2]		School type			
	High poverty school	Low poverty school	Public	Catholic	Inde- pendent	Other private
Never	0.8	0.3	0.3	0.4	0.7	0.5
Once or twice	0.6	0.2	0.3	0.4	0.6	0.5
More than twice	0.4	0.2	0.2	0.2	0.4	0.4

[1] Hispanics may be of any race.

[2] For this indicator, high poverty schools are defined as schools in which 50 percent or more of students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Educational Longitudinal Study of 1988, base year survey, 1988; unpublished tabulations.

Table 1:23-1 Percent of eighth grade *students* who consider problems in the schools to be serious, by selected student and school characteristics: 1988

		Sex		Race/ethnicity				
Problem	Total	Male	Female	White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian
Student tardiness	11.9	10.9	12.9	9.2	22.3	17.3	12.8	14.8
Student absenteeism	11.8	10.3	13.2	9.1	23.4	15.7	11.3	14.5
Cutting class	15.0	12.8	17.1	11.9	25.4	21.5	17.8	19.6
Robbery or theft	13.5	13.1	13.9	12.0	20.1	14.3	15.9	18.1
Student possession of weapons	11.3	11.9	10.7	9.7	16.8	13.7	14.3	15.3
Vandalism of school property	14.5	14.4	14.6	12.8	19.6	17.6	20.0	19.4
Physical conflicts among students	16.6	14.9	18.4	14.8	25.6	17.8	17.2	22.3
Physical abuse of teachers	7.9	7.8	8.0	7.0	9.6	10.4	11.3	9.6
Verbal abuse of teachers	11.5	11.9	11.1	10.9	14.1	13.0	11.3	13.0

	School poverty level[2]		School type			
Problems	High poverty	Low poverty	Public	Catholic	Independent	Other private
Student tardiness	18.5	10.7	12.9	5.0	4.2	5.7
Student absenteeism	19.7	10.4	12.9	4.4	2.9	2.3
Cutting class	22.7	13.6	16.1	7.0	10.5	4.8
Robbery or theft	18.5	12.7	14.1	8.8	14.5	7.8
Student possession of weapons	15.4	10.6	11.8	8.1	11.4	5.5
Vandalism of school property	20.0	13.6	15.2	9.8	15.7	6.8
Physical conflicts among students	22.6	15.6	17.8	8.4	9.6	6.9
Physical abuse of teachers	9.9	7.6	7.9	7.8	10.8	5.5
Verbal abuse of teachers	13.7	11.1	11.9	9.4	9.8	7.1

[1] Hispanics may be of any race.

[2] High poverty schools, in this indicator, are defined as schools in which 50 percent or more of the students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, base year survey, 1988; unpublished tabulations.

Table 1:23-2 Percent of eighth grade *teachers* who consider problems in the schools to be serious, by selected teacher and school characteristics: 1988

		Sex		Race/ethnicity				
Problem	Total	Male	Female	White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian
Student tardiness	9.0	12.8	7.6	8.1	13.2	17.4	36.0	15.2
Student absenteeism	12.3	13.3	11.8	10.9	19.6	25.0	25.8	21.2
Cutting class	3.8	5.5	2.9	3.4	5.3	2.1	2.5	6.7
Robbery or theft	2.0	2.4	1.9	1.7	2.9	9.5	2.5	7.3
Student possession of weapons	1.4	1.2	1.5	1.4	1.6	[2]0	[2]0	7.3
Vandalism of school property	4.9	5.6	4.7	4.6	8.5	7.3	2.5	9.5
Physical conflicts among students	7.0	6.2	7.3	6.8	12.2	1.8	[2]0	7.3
Physical abuse of teachers	1.7	2.2	1.5	1.6	1.9	[2]0	[2]0	7.3
Verbal abuse of teachers	10.1	13.8	8.8	10.0	10.6	9.7	6.9	20.9

	School poverty level[3]		School type	
Problems	High poverty	Low poverty	Public	Catholic
Student tardiness	15.9	7.5	9.4	8.7
Student absenteeism	25.0	10.0	13.7	8.9
Cutting class	7.1	3.3	4.4	0.0
Robbery or theft	3.4	1.9	2.3	0.9
Student possession of weapons	4.3	0.9	1.7	0.9
Vandalism of school property	10.0	4.3	5.5	1.8
Physical conflicts among students	18.9	4.4	8.0	1.1
Physical abuse of teachers	6.3	0.7	1.5	0.9
Verbal abuse of teachers	21.4	7.6	11.3	1.8

[1] Hispanics may be of any race.

[2] No eighth grade teacher respondent of this race/ethnicity indicated that this was a "serious" problem in the school where they taught.

[3] High poverty schools, in this indicator, are defined as schools in which 50 percent or more of the students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, base year survey, 1987–1988; unpublished tabulations.

Table 1:23-3 Standard errors for estimated percentages in table 1:23-1

		Sex		Race/ethnicity				
Problem	Total	Male	Female	White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian
Student tardiness	0.3	0.4	0.5	0.3	1.0	1.0	1.1	2.2
Student absenteeism	0.3	0.4	0.5	0.3	1.0	1.0	1.1	2.1
Cutting class	0.4	0.4	0.5	0.4	1.1	1.3	1.4	2.4
Robbery or theft	0.3	0.4	0.4	0.3	0.9	0.9	1.2	2.2
Student possession of weapons	0.3	0.4	0.3	0.3	0.9	0.8	1.1	2.2
Vandalism of school property	0.4	0.5	0.4	0.4	1.0	0.9	1.6	2.8
Physical conflicts among students	0.4	0.5	0.5	0.4	1.0	0.9	1.2	2.7
Physical abuse of teachers	0.2	0.3	0.3	0.2	0.6	0.7	1.0	1.7
Verbal abuse of teachers	0.3	0.4	0.4	0.3	0.8	0.7	1.1	2.0

	School poverty level[2]		School type			
Problems	High poverty	Low poverty	Public	Catholic	Inde-pendent	Other private
Student tardiness	1.2	0.3	0.4	0.7	0.6	1.1
Student absenteeism	1.2	0.3	0.4	0.6	0.7	0.6
Cutting class	1.5	0.4	0.5	0.5	1.2	0.7
Robbery or theft	1.0	0.3	0.3	0.7	1.7	1.4
Student possession of weapons	1.0	0.3	0.3	0.6	1.1	0.9
Vandalism of school property	1.1	0.4	0.4	0.7	1.8	0.9
Physical conflicts among students	1.0	0.4	0.4	0.6	0.9	0.9
Physical abuse of teachers	0.7	0.3	0.2	0.6	1.2	1.0
Verbal abuse of teachers	0.8	0.3	0.3	1.0	0.9	1.1

[1] Hispanics may be of any race.

[2] High poverty schools, in this indicator, are defined as schools in which 50 percent or more of the students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, base year survey, 1988; unpublished tabulations.

Table 1:23-4 Standard errors for estimated percentages in table 1:23-2

Problem	Total	Sex		Race/ethnicity				
		Male	Female	White	Black	Hispanic[1]	Asian/ Pacific Is.	American Indian
Student tardiness	1.0	2.2	1.0	1.0	4.0	10.2	9.3	7.1
Student absenteeism	1.0	2.0	1.1	1.0	4.8	10.0	17.8	7.3
Cutting class	0.6	1.3	0.8	0.7	2.3	1.0	1.8	6.9
Robbery or theft	0.4	0.8	0.4	0.3	2.1	7.2	1.8	6.7
Student possession of weapons	0.3	0.6	0.4	0.4	0.7	[2]0	[2]0	6.7
Vandalism of school property	0.7	1.4	0.7	0.8	3.8	3.9	1.8	3.9
Physical conflicts among students	0.8	1.4	1.1	1.0	4.3	1.2	[2]0	6.7
Physical abuse of teachers	0.4	0.9	0.5	0.4	1.4	[2]0	[2]0	6.7
Verbal abuse of teachers	0.8	2.2	0.9	0.9	3.7	4.7	6.9	7.2

Problems	School poverty level[2]		School type	
	High poverty	Low poverty	Public	Catholic
Student tardiness	3.8	0.9	1.1	4.9
Student absenteeism	3.3	1.0	1.3	4.8
Cutting class	3.0	0.5	0.8	—
Robbery or theft	1.1	0.5	0.5	0.9
Student possession of weapons	1.9	0.2	0.4	0.9
Vandalism of school property	2.9	0.7	0.9	1.3
Physical conflicts among students	4.0	0.6	1.0	0.9
Physical abuse of teachers	2.0	0.3	0.5	0.9
Verbal abuse of teachers	3.4	0.7	1.0	1.2

— Too few responses in this category of the question for an accurate estimate of a standard error.

[1] Hispanics may be of any race.

[2] No eighth grade teacher respondent of this race/ethnicity indicated that this was a "serious" problem in the school where they taught.

[3] High poverty schools, in this indicator, are defined as schools in which 50 percent or more of the students receive a free or reduced price lunch. In low poverty schools, less than 50 percent receive a free or reduced price lunch.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, base year survey, 1987–1988; unpublished tabulations.

Table 1:24-1 Public perceptions of problems in public schools, by selected groups: 1990

Problem	National totals	No children in school	Public school parents	Nonpublic school parents
	Percent of respondents who think item is a problem			
Use of drugs	38	40	34	39
Lack of discipline	19	19	17	25
Lack of proper financial support	13	18	17	21
Poor curriculum/ poor standards	8	9	7	6
Large schools/ overcrowding	7	6	10	16
Difficulty getting good teachers	7	6	10	10
Pupils' lack of interest/ truancy	6	7	3	3
Low teacher pay	6	5	6	8
Crime/vandalism	5	7	4	1
Integration/busing	5	5	4	6
Parents' lack of interest	4	5	3	3
Drinking/alcoholism	4	4	4	3
Teachers' lack of interest	4	3	5	5
Moral standards	3	4	2	1
Lack of respect for teachers/other students	3	3	3	4
Lack of needed teachers	3	3	3	1
Lack of family structure	3	3	3	2
Lack of proper facilities	2	1	2	4

Table 1:24-1 Public perceptions of problems in public schools, by selected groups: 1990—Continued

Problem	National totals	No children in school	Public school parents	Nonpublic school parents
	Percent of respondents who think this is a problem			
Parents' involvement in school activities	2	2	2	2
Mismanagement of funds/ programs	2	1	2	1
Problems with administration	2	2	3	3
Communication problems	2	2	2	2
Fighting	2	2	2	(*)
Lack of after-school programs	1	1	2	2
Transportation	1	1	1	2
Taxes are too high	1	1	1	1
Too much emphasis on sports	1	1	1	(*)
School board politics	1	1	2	(*)
Non-English-speaking students	1	1	(*)	(*)
Peer pressure	1	1	(*)	(*)
There are no problems	1	1	2	3
Miscellaneous	5	4	6	6
Don't know	6	7	2	5

* Less than one-half of 1 percent.

NOTE: Figures add to more than 100 percent because of multiple answers. The standard error of estimated percentages between 30 and 70 percent is a maximum of 2 percentage points. For estimated percentages less than 30 and greater than 70, the standard errors are smaller.
SOURCE: "The 22nd Annual Gallup Poll of the Public's Attitudes Toward the Public Schools," *Phi Delta Kappan*, September 1990.

Indicator 1:25

Table 1:25-1 National index of public school revenues per pupil, by enrollment in relation to per capita income: Selected school years ending 1940–1990

School year ending	National index	Total education revenues[1] (billions)	Public elementary/ secondary enrollment (millions)	Total per pupil education revenues[2]	Total personal income[3] (billions)	Total population[4] (millions)	Per capita personal income[3]
1940	16.5	$21.4	25.4	$845	$669.5	131.0	$5,107
1950	15.5	29.1	25.1	1,160	1,113.4	149.2	7,460
1955	15.9	41.1	29.5	1,390	1,421.8	162.4	8,752
1956	16.6	47.0	30.7	1,532	1,523.9	165.3	9,216
1957	16.4	49.9	31.7	1,572	1,611.5	168.3	9,574
1958	17.8	56.4	33.0	1,710	1,648.5	171.3	9,622
1959	17.3	55.9	34.1	1,640	1,651.2	174.2	9,480
1960	19.0	65.9	35.2	1,872	1,745.5	177.1	9,855
1961	18.6	67.3	36.3	1,855	1,798.0	180.7	9,948
1962	20.2	76.2	37.5	2,034	1,852.2	183.7	10,081
1963	19.9	80.8	38.7	2,085	1,950.8	186.6	10,454
1964	20.3	87.3	40.2	2,172	2,023.7	189.3	10,690
1965	19.9	92.1	41.4	2,224	2,139.8	191.9	11,147
1966	21.2	104.6	42.2	2,481	2,278.1	194.3	11,722
1967	20.7	109.4	43.0	2,541	2,410.7	196.6	12,260
1968	22.4	124.2	43.9	2,829	2,508.7	198.8	12,621
1969	22.0	129.8	44.9	2,889	2,642.0	200.8	13,161
1970	23.2	142.6	45.6	3,127	2,738.1	202.7	13,505
1971	23.9	149.1	45.9	3,249	2,787.0	205.1	13,590
1972	25.2	160.5	46.1	3,483	2,869.8	207.7	13,817
1973	24.4	162.1	45.7	3,543	3,052.7	209.9	14,544
1974	24.7	170.5	45.4	3,753	3,225.7	211.9	15,219
1975	25.3	169.9	45.1	3,772	3,191.1	213.9	14,920
1976	26.1	172.1	44.8	3,841	3,173.6	216.0	14,694
1977	25.5	172.1	44.3	3,883	3,316.0	218.1	15,206
1978	25.6	174.7	43.6	4,009	3,448.4	220.3	15,653
1979	25.4	175.4	42.6	4,123	3,613.7	222.6	16,232

Table 1:25-1 National Index of public school revenues per pupil, by enrollment in relation to per capita income: Selected school years ending 1955–1990—Continued

School year ending	National index	Total education revenues[1] (billions)	Public elementary/ secondary enrollment (millions)	Total per pupil education revenues[2]	Total personal income[3] (billions)	Total population[4] (millions)	Per capita personal income[3]
1980	25.7	$173.5	41.6	$4,166	$3,642.1	225.1	$16,180
1981	26.1	167.2	40.9	4,085	3,563.2	227.7	15,645
1982	25.1	157.6	40.0	3,938	3,605.3	230.2	15,663
1983	25.9	158.3	39.6	4,001	3,597.9	232.6	15,470
1984	26.6	164.5	39.3	4,192	3,705.0	234.8	15,778
1985	26.7	171.8	39.2	4,381	3,889.7	237.0	16,410
1986	27.2	180.2	39.4	4,570	4,017.6	239.3	16,787
1987	27.3	188.4	39.8	4,729	4,182.6	241.7	17,307
1988	27.5	194.0	40.0	4,850	4,310.1	244.0	17,666
1989	28.8	210.1	40.2	5,228	4,473.4	246.4	18,157
1990[5]	28.5	213.3	40.5	5,264	4,596.4	248.8	18,474

[1] In constant 1990 dollars, based on the Current Price Index (CPI) for the year in which the school year began.

[2] Per pupil total education revenues, in constant 1990 dollars, are the ratio of total education revenues to public school enrollment, adjusted by the CPI for the year in which school year began.

[3] For the calendar year in which the school year began. In constant 1990 dollars, based on the CPI.

[4] For the calendar year in which the school year began.

[5] Revenues and enrollments are from the 1990 *Early Estimates: Key Statistics for Public Elementary and Secondary Education*.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data Survey, various years, *Early Estimates: Key Statistics for Public Elementary and Secondary Education*; U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income: 1929–82*, 1984, *Regional Economic Information System*, August 1987; and National Education Association, annual *Estimates of State School Statistics*, various years.

Table 1:25-2 State indices of public school revenues per pupil, by enrollment in relation to per capita income: School years ending 1980 and 1989

	State index		Total education revenues (thousands)	Public elementary/ secondary enrollment	Per pupil education revenues	Total personal income (millions)	Total population (thousands)	Per capita personal income
State	1980	1989	1989	1989	1989	1988*	1988*	1988*
Total	25.7	28.8	$191,210,312	40,188,690	$4,758	$4,058,655	245,783	$16,513
Alabama	19.9	27.5	2,552,053	724,751	3,521	52,574	4,103	12,814
Alaska	34.3	42.2	864,292	106,481	8,117	10,094	525	19,227
Arizona	25.1	30.0	2,589,909	574,890	4,505	52,234	3,483	14,997
Arkansas	18.4	27.8	1,473,751	436,387	3,377	29,085	2,396	12,139
California	21.6	25.4	22,208,938	4,618,120	4,809	535,721	28,323	18,915
Colorado	26.9	26.9	2,477,978	560,081	4,424	54,356	3,300	16,472
Connecticut	18.6	29.2	3,116,060	460,637	6,765	74,956	3,232	23,192
Delaware	27.1	29.8	500,642	96,678	5,178	11,457	660	17,359
District of Columbia	20.2	27.8	521,094	84,792	6,146	13,534	613	22,078
Florida	22.0	29.5	8,396,809	1,720,930	4,879	203,768	12,338	16,515
Georiga	20.2	27.7	4,693,011	1,107,994	4,236	96,860	6,339	15,280
Hawaii	19.3	24.2	682,202	167,488	4,073	18,459	1,096	16,842
Idaho	20.6	24.0	651,165	214,615	3,034	12,686	1,003	12,648
Illinois	20.5	25.4	8,023,607	1,794,916	4,470	204,005	11,613	17,567
Indiana	18.8	30.9	4,372,707	960,994	4,550	81,834	5,559	14,721
Iowa	24.5	30.3	2,072,991	478,200	4,335	40,518	2,830	14,317
Kansas	24.7	28.7	1,920,927	426,596	4,503	39,161	2,496	15,690
Kentucky	18.4	25.4	2,071,522	637,627	3,249	47,663	3,726	12,792
Louisiana	21.2	29.0	2,787,869	786,683	3,544	53,931	4,407	12,238
Maine	22.0	32.1	1,027,134	212,902	4,824	18,144	1,206	15,045
Maryland	24.2	28.1	3,804,336	688,947	5,522	90,842	4,626	19,637
Massachusetts	31.0	28.2	4,847,275	823,428	5,887	123,090	5,890	20,898
Michigan	25.4	29.7	7,700,991	1,582,785	4,865	151,446	9,240	16,390
Minnesota	27.7	30.6	3,665,226	726,950	5,042	70,963	4,308	16,472
Mississippi	17.6	25.9	1,440,070	503,326	2,861	28,970	2,620	11,057
Missouri	21.0	27.8	3,442,018	806,639	4,267	78,807	5,140	15,332
Montana	28.2	33.8	662,104	152,191	4,350	10,361	805	12,871
Nebraska	23.5	30.9	1,214,451	269,434	4,507	23,358	1,603	14,571
Nevada	18.2	24.0	757,861	176,474	4,294	18,822	1,054	17,858
New Hampshire	14.7	24.4	803,925	169,413	4,745	21,069	1,085	19,418

Table 1:25-2 State indices of public school revenues per pupil, by enrollment in relation to per capita income: School years ending 1980 and 1989—Continued

State	State index 1980	State index 1989	Total education revenues (thousands) 1989	Public elementary/ secondary enrollment 1989	Per pupil education revenues 1989	Total personal income (millions) 1988*	Total population (thousands) 1988*	Per capita personal income 1988*
New Jersey	29.1	33.2	$7,992,886	1,080,871	$7,395	$171,835	7,718	$22,264
New Mexico	25.2	31.5	1,142,068	292,425	3,906	18,723	1,510	12,399
New York	30.5	37.1	18,764,256	2,573,715	7,291	352,137	17,909	19,663
North Carolina	20.7	27.7	4,279,584	1,083,156	3,951	92,429	6,489	14,244
North Dakota	24.4	31.8	466,586	118,809	3,927	8,234	667	12,345
Ohio	22.1	30.0	8,222,796	1,778,544	4,623	167,606	10,865	15,426
Oklahoma	21.9	27.6	2,127,862	580,426	3,666	43,030	3,234	13,306
Oregon	25.9	33.9	2,315,476	461,752	5,015	40,991	2,768	14,809
Pennsylvania	26.2	34.2	9,154,167	1,659,714	5,516	193,599	11,998	16,136
Rhode Island	25.1	33.4	753,042	133,585	5,637	16,758	993	16,876
South Carolina	18.8	30.9	2,453,008	615,774	3,984	44,717	3,465	12,905
South Dakota	21.5	29.3	468,658	126,910	3,693	8,993	714	12,595
Tennessee	16.8	23.9	2,731,861	821,580	3,325	68,050	4,898	13,893
Texas	20.4	27.1	13,110,312	3,283,707	3,993	248,349	16,834	14,753
Utah	24.2	22.8	1,203,017	431,119	2,790	20,674	1,691	12,226
Vermont	26.1	35.6	507,918	93,381	5,439	8,521	558	15,271
Virginia	21.0	26.6	4,636,663	982,393	4,720	106,510	6,013	17,713
Washington	25.8	29.2	3,775,985	790,918	4,774	76,131	4,652	16,365
West Virginia	23.3	33.2	1,290,156	335,912	3,841	21,719	1,876	11,577
Wisconsin	25.6	32.8	3,904,897	774,857	5,040	74,302	4,832	15,377
Wyoming	25.7	42.2	566,196	97,793	5,790	6,579	480	13,706

* The figures shown are for calendar year 1988.

SOURCES: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 1990 (based on Common Core of Data Surveys, various years); U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, various years.

Table 1:25-3 School revenues as a percentage of GNP, and revenue sources for public elementary and secondary schools: Selected school years ending 1920-1989

School year ending	School revenues as a percent of the GNP	Sources		
		Local*	State	Federal
		Percent of total		
1920	—	83.2	16.5	0.3
1930	—	82.7	16.9	0.4
1940	—	68.0	30.3	1.8
1950	—	57.3	39.8	2.9
1960	—	56.5	39.1	4.4
1970	4.1	52.1	39.9	8.0
1971	4.2	52.5	39.1	8.4
1972	4.3	52.8	38.3	8.9
1973	4.1	51.3	40.0	8.7
1974	4.1	50.1	41.4	8.5
1975	4.2	48.8	42.2	9.0
1976	4.2	46.5	44.6	8.9
1977	4.0	47.8	43.4	8.8
1978	3.9	47.6	43.0	9.4
1979	3.7	44.6	45.6	9.8
1980	3.7	43.4	46.8	9.8
1981	3.7	43.4	47.4	9.2
1982	3.5	45.0	47.6	7.4
1983	3.6	45.0	47.9	7.1
1984	3.5	45.4	47.8	6.8
1985	3.5	44.4	48.9	6.6
1986	3.6	43.9	49.4	6.7
1987	3.6	43.9	49.8	6.4
1988	3.6	44.1	49.5	6.3
1989	3.6	46.1	47.7	6.2

— Not available.

* Includes intermediate source.

NOTE: Percents may not add to 100 due to rounding. Some figures revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 1990 (based on Common Core of Data survey and its predecessors).

Table 1:25-4 Total and current expenditure per pupil, by enrollment in public elementary and secondary schools: Selected school years ending 1950–1990

School year ending	Total expenditure per pupil*	Current expenditure per pupil*
1950	$1,268	$1,026
1952	1,360	1,063
1954	1,508	1,141
1956	1,712	1,301
1958	1,857	1,416
1960	1,947	1,549
1962	2,098	1,700
1964	2,192	1,804
1966	2,473	2,033
1968	2,798	2,339
1970	3,022	2,581
1971	3,174	2,755
1972	3,267	2,865
1973	3,389	3,016
1974	3,467	3,068
1975	3,574	3,158
1976	3,666	3,247
1977	3,706	3,342
1978	3,832	3,481
1979	3,851	3,520
1980	3,835	3,498
1981	3,812	3,453
1982	3,831	3,482
1983	3,956	3,616
1984	4,138	3,745
1985	4,285	3,952
1986	4,493	4,148
1987	4,730	4,303
1988	4,824	4,410
1989	4,895	4,466
1990	4,929	4,554

* In constant 1990 dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*; various years; *Revenues and Expenditures for Public Elementary and Secondary Education*, Common Core of Data survey, various years; and unpublished tabulations.

Supplemental note 1:25 Calculation of national index of public school revenues

Total per pupil education revenues are the ratio of total public school education revenues to public school enrollment. Per capita income is the ratio of total personal income to total population. The index can be expressed algebraically, therefore, as a function of 4 variables:

$$\text{National index} = \frac{\text{Total Per pupil education revenues}}{\text{Per capita income}} \times 100$$

OR

$$\text{National Index} = \frac{\text{Total education revenues / Public school enrollment}}{\text{Total personal income / Total population}} \times 100$$

Total education revenues and personal income are in constant 1990 dollars. Total education revenues are adjusted by the Current Price Index (CPI) for the year in which school year began. Per pupil education revenues are the ratio of total education revenues to public school enrollment. Total personal income and total population are for the calendar year in which the school year began. Revenues and enrollments for 1989-90 are from *Early Estimates: Key Statistics for Public Elementary and Secondary Education.*

Indicator 1:26

Table 1:26-1 Current *public* expenditures for education in fiscal year 1987 U.S. dollars, by country: School year beginning fall 1986

Country	Enrollment grades K–12[1] (thousands)	Current *public* education expenditures				GDP[2] (billions)	Population (millions)
		Total		Per pupil			
		(millions)[2]	As percent of GDP[3]	($)[2]	As percent of GDP[3]/capita		
Larger countries							
United States	45,205	$146,321	3.50	$3,238	18.7	4,181.7	241.6
Japan[4]	23,936	45,566	3.04	1,904	15.4	1,500.1	121.5
West Germany	10,751	20,856	2.69	1,941	15.3	775.7	61.1
United Kingdom	9,359	23,407	3.54	2,502	21.5	662.1	56.8
France	12,048	25,106	3.70	2,084	17.0	678.2	55.4
Italy	10,513	19,087	2.91	1,816	15.8	656.2	57.2
Canada	4,938	16,962	4.14	3,436	21.3	410.2	25.4
Spain[5]	9,182	6,901	2.23	752	9.4	309.6	38.7
Turkey	9,896	2,327	1.17	235	6.1	199.5	51.7
Other countries							
Australia	2,978	6,056	2.97	2,034	15.9	204.1	16.0
Austria	1,181	3,172	3.77	2,686	24.2	84.3	7.6
Belgium	1,921	4,361	3.95	2,271	20.3	110.5	9.9
Denmark	937	2,866	4.32	3,060	23.5	66.4	5.1
Finland	891	2,320	3.95	2,605	21.7	58.7	4.9
Ireland	906	1,090	4.36	1,202	16.9	25.0	3.5
Luxembourg[6]	54	157	3.04	3,041	22.6	5.4	0.4
Netherlands	3,241	5,910	3.43	1,824	15.5	172.1	14.6
New Zealand	731	1,042	3.02	1,426	13.7	34.5	3.3
Norway	809	2,674	4.32	3,307	22.4	61.9	4.2
Portugal	2,031	1,643	2.89	810	13.8	56.8	9.7
Sweden	1,484	4,887	4.39	3,293	24.8	111.4	8.4
Switzerland	903	3,468	3.49	3,844	25.5	99.3	6.6

[1] For the United States, enrollment includes nursery school enrollment in regular elementary schools. For other countries, enrollment includes enrollment in education preceding the first level, first level, and second level. See supplemental note 1:26 for a definition of these levels.

[2] Purchasing power parity indices were used to convert other currencies to U.S. dollars.

[3] Gross Domestic Product is Gross National Product less net property income from abroad.

[4] Includes both public and private expenditures. See supplemental note 1:26 for further discussion.

[5] Distribution of expenditure by level for 1979; total current expenditure and enrollment for 1986.

[6] Data for 1987.

NOTE: Public current expenditures for second level may include expenditures for vocational, teacher training and general education. See supplemental note 1:26 for further discussion.

SOURCE: Unesco *Statistical Yearbook*, 1990 and 1989 editions, tables 3.4, 3.7, 4.3; Organization for Economic Cooperation and Development, *National Accounts, Volume 1, Main Aggregates: 1965–1988*; U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1990*, tables 2 and 153.

Supplemental note 1:26 International comparisons of expenditures for elementary and secondary education

Per pupil expenditures are calculated as current public expenditures divided by enrollment in both public and private schools. This is a measure of average public investment per student in the school system. It is not a measure of total resources a student receives which would include private expenditures. Unesco's *Statistical Yearbook*, our source for expenditure data, reports public expenditures only. Japan is an exception which we discuss below.

The International Standard Classification of Education (ISCED) was designed as an instrument for presenting statistics of education internationally. Many countries report education statistics to Unesco and the Organization for Economic Cooperation and Development (OECD) using the ISCED. In this classification system, education is divided into several levels. The following are summary definitions:

> *Education preceding the first level*, where it is provided, usually begins at age 3, 4, or 5 (sometimes earlier) and lasts from 1 to 3 years. For the United States, this would primarily be nursery schools.
>
> *Education at the first level* usually begins at age 5, 6, or 7, and lasts for about 5 or 6 years. For the United States this would start with kindergarten and finish with grade 6. No attempt is made to remove a small number of nursery school students in regular elementary schools from the enrollment figure for grades K–6 in the United States.
>
> *Education at the second level, first stage*, begins at about age 11 or 12 and lasts for about 3 years. *Education at the second level, second stage*, begins at about age 14 or 15 and lasts for about 3 years. For the United States second level would start with grade 7 and finish with grade 12.

Calculating public expenditures per student requires that expenditures in the currencies of other countries be converted to U.S. dollars to facilitate comparison with expenditures in the United States. There are, at least, two methods for doing so: (1) purchasing power parity (PPP) indices and (2) market exchange rates. PPP indices for Gross Domestic Product (GDP) have been used in this indicator.[1] The market exchange rate is the rate at which an individual can exchange the currencies of two countries. It is determined by confidence in the government, the monetary system, and the economy of the two countries and by the relative demands for commodities the two countries trade with each other. Market exchange rates can be volatile. PPP indices are calculated by comparing the cost of a fixed market basket of goods in each country. Changes over time in the PPP index are determined by the rates of inflation in each country. The PPP index is not volatile.[2]

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[1] PPP indices for other aggregates such as private consumption expenditures are available. See Barro, Stephen M., "International Comparisons of Education Spending: Some Conceptual and Methodological Issues," SMB Economic Research, Inc., April 1990, for a discussion of the strengths and weaknesses of using various indices.

The countries chosen for comparison in the indicator are the "larger" countries, based on GDP, population, and school enrollment, for which data are available (supplementary table 1:26-1).

The source of expenditure and enrollment data for countries other than the U.S. is the Unesco *Statistical Yearbook, 1990 and 1989* editions. It reports public current expenditures for all levels of education and then allocates these expenditures to each level. This indicator includes public expenditures for the pre-first, first, and second levels; excluded are expenditures for third level (postsecondary education), "other," and "not distributed." In some countries the "other" and "not distributed" categories are quite large, ranging from a low of 8 percent for the total of the two categories in the United Kingdom to a high of 25 percent in Italy. It is likely that some portion of these expenditures should be included, if it were possible to identify those pertaining to elementary and secondary education.

Distribution of current expenditures for education, by level of education and country: School year beginning 1986

Country	Level of education: Pre-first, first, and second	Third	Other and not distributed
United States	75.8	24.2	0.0
Japan[1]	62.9	21.7	15.4
West Germany	66.7	21.0	12.3
United Kingdom	73.3	19.3	7.5
France	70.2	12.5	17.3
Canada	61.7	28.8	9.6
Italy	64.4	10.3	25.3
Spain[2]	81.7	14.0	4.3
Turkey	65.3	25.3	9.4

[1] Includes both public and private expenditures.

[2] Data for 1979.

SOURCE: Unesco *Statistical Yearbook*, 1990 and 1989 editions, table 4.3.

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[2] For a further argument against using market exchange rates see Rasel, Edith M. and Lawrence Mishel, "Shortchanging Education," Economic Policy Institute, January 1990.

Indicator 1:26

Data for Japan reported in Unesco's *Statistical Yearbook* includes current education expenditures from both public and private sources. Based on figures reported in Japan's *Statistical Abstract of Education, Science, and Culture* (1990 and 1988 editions) an estimated 12 percent of Japan's education expenditure for grades K through 12 is by private schools and institutions. Based on a comparison of these two sources, it appears that a part of the expenditures reported in Unesco's *Statistical Yearbook* but not distributed by level includes special education and colleges of technology. Thus, there are sources of over- and understatement of Japan's *public* education spending at the pre-first through second levels.

Indicator 1:27

Table 1:27-1 Estimated annual salary (in 1990 constant dollars) of teachers in public elementary and secondary schools, and percent increase since 1960: School years ending 1960 to 1990

School year ending	All teachers	Percent change since 1960	Elementary teachers	Percent change since 1960	Secondary teachers	Percent change since 1960
1960	$21,603	—	$20,825	—	$22,819	—
1962	23,852	10.4	23,095	10.9	24,977	9.5
1964	25,269	17.0	24,468	17.5	26,411	15.7
1966	26,421	22.3	25,582	22.8	27,546	20.7
1968	28,375	31.3	27,554	32.3	29,404	28.9
1970	29,686	37.4	28,949	39.0	30,598	34.1
1971	30,330	40.4	29,521	41.8	31,311	37.2
1972	30,660	41.9	29,772	43.0	31,690	38.9
1973	30,897	43.0	30,043	44.3	31,908	39.8
1974	30,029	39.0	29,296	40.7	30,885	35.4
1975	29,219	35.3	28,449	36.6	30,120	32.0
1976	29,536	36.7	28,786	38.2	30,326	32.9
1977	29,578	36.9	28,770	38.2	30,513	33.7
1978	29,469	36.4	28,736	38.0	30,308	32.8
1979	28,528	32.1	27,862	33.8	29,321	28.5
1980	26,742	23.8	26,071	25.2	27,561	20.8
1981	26,479	22.6	25,857	24.2	27,226	19.3
1982	26,625	23.2	26,043	25.1	27,358	19.9
1983	27,411	26.9	26,791	28.6	28,200	23.6
1984	27,998	29.6	27,409	31.6	28,810	26.3
1985	28,999	34.2	28,493	36.8	29,736	30.3
1986	30,098	39.3	29,468	41.5	30,901	35.4
1987	31,048	43.7	30,375	45.9	31,895	39.8
1988	31,448	45.6	30,851	48.1	32,329	41.7
1989	31,694	46.7	31,115	49.4	32,411	42.0
1990	32,249	49.3	31,417	50.9	32,740	43.5

— Not applicable.

NOTE: Data have been revised from previously published figures.

SOURCE: National Education Association, Estimates of School Statistics, 1987-88, and unpublished data. (Latest edition 1989-90. Copyright 1990 by the National Education Association. All rights reserved.)

Indicator 1:28

Table 1:28-1 Selected characteristics of teachers and school administrators: 1987–1988

	Teachers				Administrators			
Characteristic	Public school	Percent of total	Private school	Percent of total	Public school	Percent of total	Private school	Percent of total
Total	2,323,204	100.0	307,131	100.0	77,890	100.0	25,401	100.0
Sex								
Male	681,161	29.3	66,785	21.7	58,585	75.2	12,131	47.8
Female	1,631,168	70.2	239,975	78.1	19,118	24.5	13,243	52.1
Not reported	10,875	0.5	370	0.1	—	—	—	—
Race								
American Indian/ Alaskan native	24,670	1.1	2,827	0.9	821	1.1	—	—
Asian or Pacific Islander	21,307	0.9	3,987	1.3	434	0.6	—	—
Black	190,018	8.2	7,165	2.3	6,696	8.6	771	3.0
White	2,050,400	88.3	288,432	93.9	69,048	88.6	24,056	94.7
Not reported	36,810	1.6	4,719	1.5	890	1.1	—	—
Ethnic origin								
Hispanic[1]	67,084	2.9	8,569	2.8	2,483	3.2	629	2.5
Non-Hispanic	2,207,746	95.0	292,566	95.3	73,245	94.0	24,167	95.1
Not reported	48,374	2.1	5,995	2.0	2,162	2.8	604	2.4
Age								
Under 40	1,124,105	48.4	170,130	55.4	14,430	18.5	7,608	30.0
40 to 49	752,301	32.4	83,021	27.0	34,163	43.9	9,849	38.8
50 or more	416,857	17.9	49,378	16.1	28,827	37.0	7,682	30.2
Not reported	29,941	1.3	4,601	1.5	469	0.6	—	—
Region								
Northeast	495,704	21.3	89,056	29.0	13,854	17.8	6,299	24.8
Midwest	610,779	26.3	81,194	26.4	22,465	28.8	7,644	30.1
South	818,588	35.2	90,588	29.5	25,890	33.2	6,995	27.5
West	398,133	17.1	46,292	15.1	15,680	20.1	4,463	17.6

— Too few cases for a reliable estimate.

[1] Hispanics may be of any race.

NOTE: Details may not add to totals due to rounding or missing values in cells with too few sample cases, or item nonresponse. Cell entries may be underestimates due to item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, *Selected Characteristics of Public and Private School Administrators (Principals): 1987–88*, 1990; *Selected Characteristics of Public and Private School Teachers, 1987–88*, 1990.

Indicator 1:28

Table 1:28-2 Standard errors for estimated percentages in table 1:28-1

	Teachers				Administrators			
Characteristics	Public	Percent of total	Private	Percent of total	Public	Percent of total	Private	Percent of total
Total	13,182	—	8,531	—	292	—	708	—
Sex								
Male	6,787	0.22	3,263	0.86	457	0.52	554	1.4
Female	10,261	0.23	7,160	0.86	407	0.52	447	1.4
Not reported	—	—	—	—	—	—	—	—
Race								
American Indian, Alaskan native	1,191	0.05	392	0.12	118	1.06	46	0.18
Asian or Pacific Islander	1,020	0.04	800	0.25	59	0.08	78	0.31
Black	4,610	0.19	781	0.26	230	0.31	133	0.54
White	13,060	0.22	8,204	0.41	398	0.32	706	0.60
Not reported	—	—	—	—	—	—	—	—
Ethnic origin								
Hispanic*	2,618	0.11	1,127	0.36	143	0.19	166	0.66
Non-Hispanic	12,804	0.15	8,052	0.39	287	0.19	666	0.66
Not reported	—	—	—	—	—		—	—
Age								
Under 40	6,334	0.24	3,086	0.80	361	0.45	444	0.24
40 to 49	7,375	0.25	3,387	0.77	327	0.47	366	1.15
50 or more	5,486	0.21	3,036	0.72	332	0.43	261	0.78
Not reported	—	—	—	—	—	—	—	—
Region								
Northeast	5,566	0.19	3,578	1.05	124	0.14	378	1.37
Midwest	6,548	0.22	3,103	1.03	163	0.16	350	1.20
South	5,891	0.19	6,403	1.52	145	0.19	477	1.53
West	4,489	0.18	2,456	0.73	157	0.18	264	1.05

— Too few cases for a reliable estimate.

* Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987-88.

Table 1:29-1 Teacher attrition status and destination of job leavers, by sector and urbanicity: Fall 1986 to fall 1987

	Public schools				Private schools			
Attrition status and destination	Total	Rural/ small city	Sub- urban	Urban	Total	Rural/ small city	Sub- urban	Urban
Number of teachers	2,181,370	1,071,826	473,100	636,444	320,171	96,070	82,780	141,321
	Attrition status (percent)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job stayers	91.0	91.3	91.3	90.4	82.9	81.9	85.0	82.4
Job leavers	9.0	8.7	8.7	9.6	17.1	18.1	15.0	17.6
Teaching elsewhere	5.2	5.1	4.8	5.6	9.0	9.3	8.3	9.3
Left profession	3.8	3.6	3.9	4.0	8.0	8.8	6.7	8.3
	Destination of job leavers (percent)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Teaching elsewhere	57.7	58.3	54.9	58.7	52.9	51.5	55.4	52.7
Left profession	42.3	41.7	45.1	41.3	47.1	48.5	44.6	47.3

NOTE: The destinations of job leavers with unknown destination were imputed based on the distribution of those with known destinations. For example, if 60 percent of job leavers with known destination were teaching elsewhere, then 60 percent of job leavers with unknown destination were allocated to the "teaching elsewhere" category. Only 0.5 percent of public school teachers and 1.2 percent of private school teachers had unknown destinations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey.

Indicator 1:29

Table 1:29-2 Destination of teachers leaving profession, by sector and urbanicity: Fall 1986 and fall 1987

Attrition status and destination	Public schools				Private schools			
	Total	Rural/ small city	Sub- urban	Urban	Total	Rural/ small city	Sub- urban	Urban
	Percent							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Working at nonteaching job	18.7	21.4	14.2	17.6	37.1	40.3	33.8	36.3
Retired, disabled, deceased	41.6	38.7	44.8	43.8	8.9	7.4	9.8	9.6
Retired	38.3	35.9	40.3	40.4	7.3	6.0	8.2	7.9
Disabled	1.2	1.2	1.3	1.1	0.8	0.9	1.1	0.7
Deceased	2.2	1.6	3.3	2.3	0.7	0.5	0.5	1.0
Homemaking and/or child rearing	13.2	14.0	15.5	10.4	26.9	26.8	31.0	24.9
Other	26.5	25.8	25.5	28.1	27.2	25.5	25.4	29.2
Attending college	7.4	7.5	5.4	8.8	14.3	12.6	13.8	15.9
Unemployed	4.3	6.0	3.6	2.2	6.0	5.8	5.4	6.3
On leave of absence	10.2	8.2	10.7	13.0	3.0	2.0	2.9	3.7
Other known status	4.5	4.1	5.8	4.1	3.9	5.1	3.3	3.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey.

Table 1:29-3 Standard errors for estimated percentages in text table for indicator 1:29

Attrition status and destination	Public schools				Private schools			
	Total	Rural/ small city	Sub- urban	Urban	Total	Rural/ small city	Sub- urban	Urban
	Attrition rate, by destination (percent)							
Total	0.1	0.2	0.2	0.3	0.3	0.9	0.6	0.5
Teaching elsewhere	0.8	0.1	0.2	0.2	0.3	0.6	0.6	0.4
Left profession	0.1	0.1	0.2	0.1	0.3	0.7	0.3	0.4
	Destination of those leaving profession: Percentage distribution							
Working at nonteaching job	0.7	0.9	1.0	1.1	2.1	3.2	3.1	3.2
Retired, disabled, deceased	0.8	1.2	2.0	1.9	0.8	1.1	2.2	1.3
Homemaking and/or child rearing	0.6	0.8	1.2	1.0	1.4	2.5	3.0	2.2
Other	0.7	1.1	1.2	1.6	1.8	3.1	2.6	2.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey.

Table 1:29-4 Standard errors for estimated numbers and percentages in table 1:29-1

	Public schools				Private schools			
Attrition status and destination	Total	Rural/ small city	Sub- urban	Urban	Total	Rural/ small city	Sub- urban	Urban
Number of teachers	8,563	10,371	10,364	8,922	6,669	4,119	5,257	5,687
	Attrition status (percent)							
Job stayers	0.1	0.2	0.2	0.3	0.3	0.9	0.6	0.5
Job leavers	0.1	0.2	0.2	0.3	0.3	0.9	0.6	0.5
Teaching elsewhere	0.8	0.1	0.2	0.2	0.3	0.6	0.6	0.4
Left profession	0.1	0.1	0.2	0.1	0.3	0.7	0.3	0.4
	Destination of job leavers (percent)							
Teaching elsewhere	0.5	0.8	1.4	1.1	1.2	2.6	2.4	2.0
Left profession	0.5	0.8	1.5	0.9	1.3	3.0	2.3	2.0

NOTE: The destinations of job leavers with unknown destination were imputed based on the distribution of those with known destinations. For example, if 60 percent of job leavers with known destination were teaching elsewhere, then 60 percent of job leavers with unknown destination were allocated to the "teaching elsewhere" category. Only 0.5 percent of public school teachers and 1.2 percent of private school teachers had unknown destinations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey.

Table 1:29-5 Standard errors for estimated percentages in table 1:29-2

Attrition status and destination	Public schools				Private schools			
	Total	Rural/ small city	Sub- urban	Urban	Total	Rural/ small city	Sub- urban	Urban
Working at nonteaching job	0.7	0.9	1.0	1.1	2.1	3.2	3.1	3.2
Retired, disabled, deceased	0.8	1.2	2.0	1.9	0.8	1.1	2.2	1.3
Retired	0.9	1.2	2.1	1.9	0.7	1.0	2.0	1.2
Disabled	0.1	0.2	0.3	0.2	0.2	0.5	0.3	0.2
Deceased	0.2	0.2	0.6	0.3	0.2	0.3	0.3	0.3
Homemaking and/or child rearing	0.6	0.8	1.2	1.0	1.4	2.5	3.0	2.2
Other	0.7	1.1	1.2	1.6	1.8	3.1	2.6	2.9
Attending college	0.4	0.5	0.5	1.1	1.4	2.7	2.0	2.3
Unemployed	0.4	0.8	0.6	0.4	0.7	1.2	1.5	1.3
On leave of absence	0.6	0.8	1.0	1.5	0.5	0.7	1.1	0.7
Other known status	0.3	0.4	0.8	0.3	0.8	1.8	1.1	0.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey.

Table 1:30-1 Percent of full-time public secondary school teachers with selected professional characteristics, by type of community and assignment field: 1987–88

Type of community and assignment field	Certified in primary assignment field	Certified in secondary assignment field[1]	Majored in primary assignment field	Majored or minored in primary assignment field	Majored or minored in secondary assignment field[1]	Graduate degree
All teachers	93.3	66.7	69.2	80.2	50.7	51.5
By type of community						
Rural/small city	93.3	70.0	68.1	80.0	51.2	44.9
Urban	91.8	58.4	67.7	78.3	49.1	57.0
Suburban	95.3	65.8	72.7	82.5	50.8	59.1
By assignment field						
English and humanities	94.2	69.8	74.6	85.6	55.3	51.7
English	93.7	69.3	65.1	79.2	50.6	51.4
Arts and foreign languages	94.8	70.8	87.5	94.4	63.8	52.1
Social science	95.0	67.8	73.1	88.6	54.9	54.8
Math and science	91.8	65.3	55.9	71.9	44.3	52.6
Math	92.1	57.2	60.3	78.2	31.3	50.5
Science	91.6	69.1	50.9	64.7	50.1	55.0
Education specialties[2]	93.2	65.8	77.1	83.1	68.3	49.3

[1] Calculated only for teachers who have a secondary assignment field.

[2] Education specialties are: elementary, physical, special, and vocational education.

NOTE: Certification, as defined here, includes standard and probationary certification by a state and full certification by an accrediting body other than the state. Those with an emergency certification are classified as not certified. See supplemental note 1:30 for definition of major or minor in assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey (SASS).

Table 1-30-2 Percent of full-time public secondary school teachers with selected professional characteristics, by primary assignment field and type of community: 1987–88

Professional characteristic and primary assignment field	Rural, small city	Urban	Suburban
	Percent certified in primary assignment field		
English and humanities	93.8	93.3	96.1
English	93.5	91.5	96.6
Arts and foreign languages	94.2	95.9	95.6
Social science	95.3	93.7	95.4
Math and science	92.6	88.5	93.5
Math	93.2	89.0	92.9
Science	92.0	87.9	94.1
Education specialties*	92.6	92.3	95.9
	Percent majored in primary assignment field		
English and humanities	73.5	72.3	78.4
English	63.4	63.6	69.7
Arts and foreign languages	87.2	85.6	89.2
Social science	71.2	76.4	73.1
Math and science	54.4	55.3	59.4
Math	60.3	58.3	63.0
Science	48.0	51.8	55.2
Education specialties*	76.4	74.4	80.8
	Percent with graduate degree		
English and humanities	44.6	58.1	58.5
English	45.0	57.8	57.0
Arts and foreign languages	44.1	58.7	60.4
Social science	49.5	59.5	61.4
Math and science	46.2	57.7	61.1
Math	45.5	56.4	57.8
Science	47.0	59.2	65.0
Education specialties*	42.6	54.8	57.3

* Education specialties are: elementary, physical, special, and vocational education.

NOTE: Certification, as defined here, includes standard and probationary certification by a state and full certification by an accredited body other than a state. Teachers with a temporary certification are classified as not certified. See supplemental note 1:30 for definition of major in primary assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey (SASS).

Table 1:30-3 Standard errors for estimated percentages in text table for indicator 1:30

Type of community and assignment field	Certified in primary assignment field	Certified in secondary assignment field	Majored or minored in primary assignment field	Majored or minored in secondary assignment field
All teachers	0.2	1.1	0.4	0.8
By type of community				
Rural/small city	0.4	1.2	0.5	0.9
Urban	0.6	2.3	0.8	2.3
Suburban	0.4	2.2	0.8	3.0
By assignment field				
English and humanities	0.4	2.3	0.6	1.8
Social science	0.5	3.3	0.8	3.4
Math and science	0.5	1.6	0.7	1.4
Education specialties*	0.4	1.7	0.5	1.7

* Education specialties are: elementary, physical, special, and vocational education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey (SASS).

Table 1:30-4 Standard errors for estimated percentages in table 1:30-1

Type of community and assignment field	Certified in primary assignment field	Certified in secondary assignment field[1]	Majored in primary assignment field	Majored or minored in primary assignment field	Majored or minored in secondary assignment field[1]	Graduate degree
All teachers	0.2	1.1	0.4	0.4	0.8	0.4
By type of community						
Rural/small city	0.4	1.2	0.6	0.5	0.9	0.5
Urban	0.6	2.3	0.7	0.8	2.3	1.1
Suburban	0.4	2.2	0.8	0.8	3.0	1.0
By assignment field						
English and humanities	0.4	2.3	0.7	0.6	1.8	0.9
English	0.5	2.6	1.0	0.8	2.4	1.2
Arts and foreign languages	0.6	3.8	0.8	0.7	3.2	1.4
Social science	0.5	3.3	1.1	0.8	3.4	1.2
Math and science	0.5	1.6	0.9	0.7	1.4	0.7
Math	0.7	3.3	1.2	1.0	2.5	1.2
Science	0.6	1.8	1.3	1.2	1.6	1.0
Education specialties[2]	0.4	1.7	0.5	0.5	1.7	0.7

[1] Calculated only for teachers who have a secondary assignment field.

[2] Education specialties are: elementary, physical, special, and vocational education.

NOTE: Certification, as defined here, includes standard and probationary certification by a state and full certification by an accrediting body other than the state. Those with an emergency certification are classified as not certified. See supplemental note 1:30 for definition of major or minor in assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey (SASS).

Table 1:30-5 Standard errors for estimated percentages in table 1:30-2

Professional characteristic and primary assignment field	Rural, small city	Urban	Suburban
	Percent certified in primary assignment field		
English and humanities	0.7	1.1	0.9
English	0.8	1.5	1.1
Arts and foreign languages	1.0	1.4	1.2
Social science	0.9	1.2	1.1
Math and science	0.7	1.2	0.9
Math	0.9	2.0	1.3
Science	1.0	1.4	1.3
Education specialties*	0.6	0.8	0.7
	Percent majored in primary assignment field		
English and humanities	1.0	1.6	1.3
English	1.5	1.8	1.8
Arts and foreign languages	1.4	2.4	1.5
Social science	1.5	1.8	2.7
Math and science	1.3	1.6	1.8
Math	1.7	2.0	3.2
Science	1.9	2.4	2.4
Education specialties*	0.8	1.1	1.4
	Percent with graduate degree		
English and humanities	1.2	1.7	1.8
English	1.4	2.4	2.7
Arts and foreign languages	2.0	2.3	2.4
Social science	1.6	2.8	2.2
Math and science	1.0	1.9	1.6
Math	1.5	2.6	2.2
Science	1.5	2.6	2.6
Education specialties*	0.9	1.6	1.5

*Education specialties are: elementary, physical, special, and vocational education.

NOTE: Certification, as defined here, includes standard and probationary certification by a state and full certification by an accredited body other than a state. Teachers with a temporary certification are classified as not certified. See supplemental note 1:30 for definition of major in primary assignment field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987–88 Schools and Staffing Survey (SASS).

Supplemental note 1:30 Variable definitions

Certification in assignment field

Certification, as defined here, includes standard and probationary certification by a state or full certification by an accrediting body other than a state. Teachers with temporary certification are classified as not certified.

Major or minor in assignment field

Teachers are classified as having majored or minored in their assignment field if the assignment field listed in the left hand column below matches the major/minor field listed in the right hand column. All degree levels are considered in determining if a match has occurred.

Assignment field	Major/minor field(s)
English/language arts	Letters (English, literature, speech, classics), English education
Art, music	Fine and applied arts, art or music education
Foreign languages	Foreign languages, foreign language education
Social studies	Area and ethnic studies, economics, history, political science, sociology, other social sciences, psychology, public affairs and services, social studies education
Mathematics	Mathematics, mathematics education
Biological/life science	Biological/life sciences
Chemistry	Chemistry
Physics	Physics

Geology/earth sciences	Geology/earth sciences
General science	Biological/life sciences, chemistry, physics, geology/earth sciences, other sciences, science education
Physical education	Health professions, physical/health education
Special education	Special education (general), education of the emotionally disturbed or mentally retarded; education of the speech, hearing, or vision impaired; special learning disabilities; other special education
Vocational education (Business, industrial arts, architecture home economics, vocational education)	Agriculture and natural resources, business and management, and environmental design, communications, engineering, agricultural education, business education, home economics education, industrial arts or vocational education, health professions, computer science
General elementary Pre-K, and kindergarten	Elementary, pre-elementary, or early childhood education

Teachers with the following assignment fields are excluded from the analysis because of difficulties matching the assignment field with the appropriate major/minor or because, in the case of computer science, a major in the field has been possible for only a few years: Basic skills and remedial education; bilingual education; computer science; English as a second language; education of the gifted; reading; religion/philosophy; unspecified.

General Information

The information presented in this report was obtained from many sources, including federal and state agencies, private research organizations, and professional associations. The data were collected using many research methods including surveys of a universe (such as all school districts) or of a sample, compilations of administrative records, and statistical projections. Users of *The Condition of Education* should take particular care when comparing data from different sources. Differences in procedures, timing, phrasing of questions, interviewer training, and so forth mean that the results are not strictly comparable. Following the general discussion of data accuracy below, descriptions of the information sources and data collection methods are presented, grouped by sponsoring organization. More extensive documentation of one survey's procedures than of another's does not imply more problems with the data, only that more information is available.

Unless otherwise noted, all comparisons cited in the text were tested for significance using t-tests and are significant at the .05 level. However, when multiple comparisons are cited, a Bonferronni adjustment to the significance level was made. When other tests were used, they are described in the supplemental note for the indicator.

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. In addition to such sampling errors, all surveys, both universe and sample, are subject to design, reporting, and processing errors and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

The estimated standard error of a statistic is a measure of the variation due to sampling and can be used to examine the precision obtained in a particular sample. The sample estimate and an estimate of its standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. If all possible samples were selected, each of these surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average value from all possible samples; 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples; and 99 percent of all intervals from 2.5 standard errors below the estimate to 2.5 standard errors above the estimate would include the average value of all possible samples. These intervals are called 90 percent, 95 percent, and 99 percent confidence intervals, respectively.

To illustrate this further, consider the text table for indicator 1:2 and table 1:2-5 for estimates of standard errors from Census Current Population Surveys. For the 1987 estimate of the percentage of white males 8 years old who were 1 or more years below modal grade (26.9 percent), supplemental table 1:2-5 shows a standard error of 1.0. Therefore, we can construct a 95 percent confidence interval from 28.9 to 24.9 (26.9 ± 2 x 1.0). If this procedure were followed for every possible sample, about 95 percent of the intervals would include the average for all possible samples.

Standard errors can help assess how valid a comparison between two estimates might be. The standard error of a difference between two sample estimates is approximately equal to the square root of the sum of the squared standard errors of the estimates. The standard error (se) of the difference between sample estimate "a" and sample estimate "b" (if "a" and "b" are approximately independent) is:

$$se_{a-b} = \sqrt{se_a^2 + se_b^2}$$

It should be noted that most of the standard errors presented in the indicators and in the original documents are approximations. That is, to derive estimates of standard errors that would be applicable to a wide variety of items and that could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

The preceding discussion on sampling variability was directed toward a situation concerning one or two estimates. Determining the accuracy of statistical projections is more difficult. In general, the further away the projection date is from the date of the actual data being used for the projection, the greater the possible error in the projection. If, for instance, annual data from 1970 to 1988 are being used to project enrollment in elementary and secondary education, the further beyond 1988 one projects, the more variability in the projection. One will be less sure of the 1994 enrollment projection than of the 1992 projection. A detailed discussion of the projections methodology is contained in *Projections of Education Statistics to 2001* (National Center for Education Statistics, 1990).

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors can arise in various ways: from respondents or interviewers interpreting questions differently, from respondents estimating the values that they provide, from partial to total nonresponse, from imputation or reweighting to adjust for nonresponse, from inability or unwillingness on the part of respondents to provide correct information, from recording and keying errors, or from overcoverage or undercoverage of the target universe.

Sampling and nonsampling error combine to yield total survey error. Since estimating the magnitude of nonsampling errors would require special experiments or access to independent data, these magnitudes are seldom available. In almost all situations, the sampling error represents an underestimate of the total survey error, and thus an overestimate of the precision of the survey estimates.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both total and partial. An adjustment made for either type of nonresponse is often referred to as an imputation—substitution of the "average" questionnaire response for the nonresponse. Imputations are usually made separately within various groups of sample members which have similar survey characteristics. Imputation for item nonresponse is usually made by substituting for a missing item the response to that item of a respondent having characteristics that are similar to those of the nonrespondent.

1. Federal Agency Sources

Bureau of the Census
U.S. Department of Commerce

Current Population Survey

Current estimates of school enrollment and social and economic characteristics of students are based on data collected in the Census Bureau's monthly household survey of about 60,000 households, the Current Population Survey (CPS). The CPS covers 729 sample areas consisting of 1,973 counties, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. The current sample was selected from 1980 census files and is periodically updated to reflect new housing construction.

The primary function of the monthly CPS is to collect data on labor force participation of the civilian noninstitutional population (It excludes military personnel and inmates of institutions.) In October of each year, questions on school enrollment by grade and other school characteristics are asked about each member of the household. A report on the educational attainment of the population is produced from data gathered in March of each year when supplemental questions on people's income are asked. The estimation procedure employed for the monthly CPS data involves inflating weighted sample results to independent estimates for the total civilian noninstitutional population by age, sex, race, and Hispanic origin. These independent estimates are derived from statistics from decennial censuses of the population: statistics on births, deaths, and immigration and emigration; and statistics on the strength of the Armed Forces. Generalized standard error tables are provided in the *Current Population Reports.* The data are subject to both nonsampling and sampling errors.

Further information is available in the *Current Population Reports,* Series P-20, or by contacting:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

School Enrollment. Each October, the Current Population Survey (CPS) includes supplemental questions on the enrollment status of the population aged 3 years old and over. Annual reports documenting school enrollment of the population have been produced by the Bureau of the Census since 1946. The latest report is *Current Population Reports*, Series P-20, No. 429, *School Enrollment—Social and Economic Characteristics of Students: October 1988 and 1987.* All sample surveys are subject to sampling and nonsampling error. The main sources of nonsampling error in the supplement are those inherent in any household survey. When a household respondent reports for all individuals in the household, is that person knowledgeable about the grade or level of school, type of school, or full-time status? In addition, some analysts believe social acceptability of response causes biased reporting, such as reluctance to report lack of a high school diploma; some dismiss it. Household-reported data may not be consistent with administrative data because definitions may not be the same. An additional source of variation in statistics reported may be a change in the survey universe over time. For example, a significantly larger proportion of young men were members of the Armed Forces in the late 1960s and early 1970s, than before or after and, therefore, were not in the CPS universe. That caused a short-term increase in the enrollment *rate* of young men, which was greater than the increase in numbers of enrollees would indicate. Other events may similarly affect survey data. The user must be mindful of external events as well as the character of the population being measured when describing survey trends.

An advantage of household survey data over administrative data is the availability of demographic, social, and economic data for the student and family not available in administrative data. Beginning with data for October 1981, tabulations have been controlled to the 1980 census. Estimates for earlier years were controlled to earlier censuses.

Questions concerning the CPS school enrollment data may be directed to:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

National Center for Education Statistics
U.S. Department of Education

Common Core of Data

The National Center for Education Statistics (NCES) uses the Common Core of Data (CCD) survey to acquire and maintain statistical data on the 50 states, the District of Columbia, and the outlying areas from the universe of state-level education agencies. Information about staff and students is collected annually at the school, LEA (local education agency or school district) and state levels. Information about revenues and expenditures is also collected at the state level. Data are collected for a particular school year (July 1 through June 30) via survey instruments sent to the states by October 15 of the subsequent school year. States have 2 years in which to modify the data originally submitted.

Since the CCD is a universe survey, the CCD information presented in this edition of *The Condition of Education* is not subject to sampling error. However, nonsampling error could come from two sources—nonreturn and inaccurate reporting. Almost all of the states submit the six CCD survey instruments each year, but there are many delays in submitting data and the submissions are sometimes incomplete.

Understandably, when 57 education agencies compile and submit data for over 85,000 public schools and approximately 15,800 local school districts, misreporting can occur. Typically, this results from varying interpretation of NCES definitions and differing recordkeeping systems. NCES attempts to minimize these errors by working closely with the Council of Chief State School Officers (CCSSO) and its Committee on Evaluation and Information Systems (CEIS).

The state education agencies report data to NCES for which NCES reimburses them from data collected and edited in the regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that those items will also be available for the subsequent CCD survey. Over time this has meant fewer missing data cells in each state's response, reducing the need to impute data.

NCES subjects data from the education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the education agencies for verification. NCES-prepared state summary forms are returned to the state education agencies for verification. States are also given an opportunity to revise their state-level aggregates from the previous survey cycle.

Questions concerning the "Common Core of Data" can be directed to:

George Wade
Elementary and Secondary Education
Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5651

International Assessment of Educational Progress

Five countries and four Canadian provinces (three provinces assessed two separate language groups) participated in the International Assessment of Educational Progress (IAEP). Results of 12 student populations are presented in this report: Ireland; Korea; in Canada: British Columbia, New Brunswick (English), New Brunswick (French), Ontario (English), Ontario (French), Quebec (English), and Quebec (French); Spain; United Kingdom (students from Scotland, England and Wales); and the United States.

From each population, a representative sample of 13-year-olds was assessed in mathematics and science. Samples were drawn at random from about 100 schools selected with probability proportional to their size, and included about 2,000 students. In the United States, the sample size was about 1,000 students from 200 schools. A total of approximately 24,000 students was surveyed. School participation rates ranged from 70 to 100 percent, and student participation rates, from 73 to 98 percent. Students were administered a 45-minute mathematics assessment consisting of 63 questions and a 45-minute science assessment made up of 60 questions. Items were selected from the total pool of 281 mathematics and 188 science questions used in the 1986 National Assessment of Educational Progress (NAEP). Questions were translated from English to French, Korean, and Spanish and then independently translated from the non-English language back to English. The back-translated versions were compared with the original English to ensure that the translations were accurate. Questions were also adapted for cultural differences. For example, units of measurement, the names of children, and species of plants or animals were changed to reflect local usage and environments. Students also answered questions about their school experiences and attitudes toward mathematics and science, and their teachers rated students' exposure to the concepts tested by the items. All countries and provinces followed standardized procedures and administered the assessments during February 1988.

The sampling designs for each of the populations may be described as stratified cluster samples. The participants, however, were free to design their surveys independently as long as certain specific rules were followed. The principal requirement was that their data be amenable to analysis as a paired cluster design, thus permitting the use of a jackknife procedure for the estimation of standard errors.

With two exceptions, all of the surveys followed the same two-stage sampling process. In the first stage, schools were selected with probabilities proportional to estimated size (number of 13-year-old students). At the second stage, subsamples of students were randomly drawn from within each selected school. Typically, about 100 schools were selected at the first stage and about 2,000 students at the second stage.

For further information about this survey contact:

Gary W. Phillips
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

National Assessment of Educational Progress

The National Assessment of Educational Progress (NAEP) is a Congressionally mandated study funded by the Office of Educational Research and Improvement, U.S. Department of Education. The overall goal of the project is to determine the Nation's progress in education. To accomplish this goal, a cross-sectional study was designed and initially implemented in 1969. Periodically, NAEP has gathered information about levels of educational achievement across the country. NAEP has surveyed the educational accomplishments of 9-,13-, and 17-year-old students, and occasionally young adults, in 10 learning areas. Different learning areas were assessed annually and, as of 1980–81, biennially. Most areas have been periodically reassessed in order to measure possible changes in education achievement.

The reading, writing, U.S. history and civics assessments presented in this publication were conducted by either the Education Commission of the States (1969–1983) or the Educational Testing Service (1983 to the present). NAEP in-school assessments were based on a deeply stratified three-stage sampling design to obtain a nationally representative sample by age and, beginning in 1983–84, by grade. The first stage of sampling entails defining and selecting primary sampling units (PSUs). For each grade level (3, 7, and 11 or 12), the second stage entails enumerating, stratifying, and randomly selecting schools, both public and private, within each PSU selected at the first stage. The third stage involves randomly selecting students within a school for participation in NAEP. Assessment exercises were administered to small groups of students by specially trained personnel.

Information from NAEP is subject to both nonsampling and sampling error. Two possible sources of nonsampling error are nonparticipation and faulty instrumentation. The effects of nonparticipation are in some ways reduced through oversampling, although this does not assess the bias of nonparticipants. Instrumentation nonsampling error includes whether the NAEP assessment instruments measure what is being taught and in turn what is being learned by the students, ambiguous items or instructions, and insufficient time limits.

For further information on NAEP, contact:

Gary Phillips
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

1987 High School Transcript Study

Transcripts of 1987 high school graduates were compared with transcripts of 1982 graduates to describe changes in course taking across this 5-year period. The analyses were based on approximately 22,700 transcripts of 1987 graduates obtained as part of the 1987 High School Transcript Study and 12,000 transcripts of 1982 graduates who participated in the High School and Beyond (HS&B) project. A brief description of each study is provided below.

The sample of schools for the 1987 High School Transcript Study (conducted by Westat, Inc., for the U.S. Department of Education, National Center for Education Statistics) consisted of a nationally representative sample of 471 eligible secondary schools selected for 1986 NAEP for grade 11/age 17 students, of which 433 schools participated.

These analyses focused on high school graduates, so only those students who had graduated from high school were included—from the 1987 High School Transcript Study as well as from High School and Beyond. Transcript Study graduates were restricted to those who were in grade 11 in 1985–86. Further, because the methods of identifying and defining handicapped students were different in the two studies, and in order to make the two samples as comparable as possible, it was necessary to restrict the samples to those students whose records indicated they had not participated in a special education program.

In 1982, high school transcripts were collected for members of the HS&B study's sophomore cohort who were selected to be in the second follow up survey (about 12,000 transcripts). As in the 1987 High School Transcript Study, records were obtained from all types of high schools, public and private. Information from the transcripts, including specific courses taken, and grades and credits earned, were coded according to the CSSC coding system and were processed into a system of data files designed to be merged with HS&B questionnaire and test data files. Unlike the 1987 High School Transcript Study, some information was not coded, such as the identification of courses as remedial, regular, or advanced, as offered in a different location, or as designed for handicapped students. The data in both sets are subject to sampling and coding (nonsampling) errors.

Further information on this survey may be obtained from:

Andrew Kolstad
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

Projections of Education Statistics

Since 1964, NCES has published *Projections of Education Statistics*, projecting for elementary and secondary schools and institutions of higher education key statistics including enrollments, instructional staff, graduates, and earned degrees. *Projections* includes several alternative projection series and a methodology section describing the techniques and assumptions used to prepare them. Data in this edition of *The Condition of Education* reflect the intermediate *Projection* series only.

Differences between the reported and projected values are, of course, almost inevitable. An evaluation of past projections revealed that, at the elementary and secondary level, projections of enrollment have been quite accurate: mean absolute percentage differences for enrollment were less than 1 percent for projections from 1 to 5 years into the future, while those for teachers were less than 4 percent.

Since projections of time series are subject to errors both by the nature of statistics and the properties of projection methodologies, users are cautioned not to place too much confidence in the numerical values of the projections. Important but unforeseeable economic and social changes may lead to differences. Rather, projections are to be considered as indicators of broad trends.

For further information about projection methodology and accuracy, contact:

Debra E. Gerald
Statistical Standards and Methodology Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5650

High School and Beyond

High School and Beyond (HS&B) is a national longitudinal survey of 1980 high school sophomores and seniors. The base-year survey was a probability sample of 1,015 high schools with a target number of 36 sophomores and 36 seniors in each of the schools. A total of 58,270 students participated in the base-year survey. Substitutions were made for noncooperating schools—but not for students—in those strata where it was possible. Overall, 1,122 schools were selected in the original sample and 811 of these schools participated in the survey. An additional 204 schools were drawn in a replacement sample. Student refusals and student absences resulted in an 82 percent completion rate for the survey.

Several small groups in the population were oversampled to allow for special study of certain types of schools and students. Students completed questionnaires and took a battery of cognitive tests. In addition, a sample of parents of sophomores and seniors (about 3,600 for each cohort) was surveyed.

HS&B first followup activities took place in the spring of 1982. The sample design of the first followup survey called for the selection of approximately 30,000 people who were sophomores in 1980. The completion rate for sophomores eligible for on-campus survey administration was about 96 percent. About 89 percent of the students who left school between the base year and first followup surveys (dropouts, transfer students, and early graduates) completed the first followup sophomore questionnaire.

As part of the first followup survey of High School and Beyond, transcripts were requested in fall 1982 for an 18,152-member subsample of the sophomore cohort.

Of the 15,941 transcripts actually obtained, 1,969 were excluded because the students had dropped out of school before graduation, 799 were excluded because they were incomplete, and 1,057 were excluded because the student graduated before 1982 or the transcript indicated neither a dropout status nor graduation. Thus 12,116 transcripts were used for the overall curriculum analysis presented in this publication. All courses in each transcript were assigned a six-digit code based on *A Classification of Secondary School Courses* (developed by Evaluation Technologies, under contract with NCES). Credits earned in each course were expressed in Carnegie units. (The Carnegie unit is a standard of measurement that represents 1 credit for the completion of a 1-year course. To receive credit for a course, the student must have received a passing grade—"pass," "D," or higher.) Students who transferred from public to private schools or from private to public schools between their sophomore and senior years were eliminated from public/private analyses.

In designing the senior cohort first followup survey, one of the goals was to reduce the size of the retained sample, while still keeping sufficient numbers of minorities to allow important policy analyses. A total of 11,227 (94 percent) of the 11,995 persons subsampled completed the questionnaire. Information was obtained about the respondents' school and employment experiences, family status, and attitudes and plans.

The sample for the second followup, which took place in spring 1984, consisted of about 12,000 members of the senior cohort and about 15,000 members of the sophomore cohort. The completion rate for the senior cohort was 91 percent, and the completion rate for the sophomore cohort was 92 percent.

HS&B third followup data collection activities were performed in spring 1986. Both the sophomore and senior cohort samples for this round of data collection were the same as those used for the second followup survey. The completion rates for the sophomore and senior cohort samples were 91 percent and 88 percent, respectively.

Further information on the High School and Beyond survey may be obtained from:

Postsecondary Education Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

National Education Longitudinal Study of 1988

The National Educational Longitudinal Study of 1988 (NELS:88) is the third major longitudinal study sponsored by the National Center for Education Statistics. The two studies that preceded NELS:88, the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B) surveyed high school seniors (and sophomores in HS&B) through high school, postsecondary education, and work and family formation experiences. Unlike its predecessors, NELS:88 began with a cohort of eighth grade students.

NELS:88 is designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. It complements and strengthens state and local efforts by furnishing new information on how school policies, teacher practices, and family involvement affect student educational outcomes (i.e., academic achievement, persistence in school, and participation in postsecondary education). The base-year NELS:88 was a multi-faceted study questionnaire with four cognitive tests, and questionnaires for students, teachers, parents and the school.

Sampling was first conducted at the school level and then at the student level within schools. The data were drawn from a nationally representative sample of 1,000 schools (800 public schools; and 200 private schools, including parochial institutions). Within this school sample, 26,000 eighth grade students were selected at random. The first followup revisited the same sample of students in 1990, when the 1988 eighth graders were in the 10th grade. Similar follow ups are planned for 1992, 1994, and 1996.

For more information on this survey, contact:

Jeffrey Owings
Elementary and Secondary Education Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, D.C. 20208-5653

Schools and Staffing Survey

Information on the school work force and teacher supply and demand are fundamental features of America's public and private school landscape. Yet, until recently, there has been a lack of data on characteristics of our children's teachers and administrators and their workplace conditions. The Schools and Staffing Survey

(SASS) was designed to meet this need. This survey is a comprehensive public and private education database that combines and expands three separate surveys NCES has conducted in the past. These included surveys of teacher demand and shortage, of public and private schools, and of public and private school teachers. The school administrator survey is a new addition to the NCES database.

Schools were the primary sampling unit for SASS, and a sample of teachers was selected in each school; public school districts were included in the sample when one or more of their schools was selected. The 1987-88 SASS included approximately 12,800 schools (9,300 public and 3,500 private), 65,000 teachers (52,000 public and 13,000 private), and 5,600 public school districts. The survey was conducted by mail with telephone followups.

The SASS sample has been designed to support the following types of estimates and comparisons: national and state estimates for public schools and teachers; estimates for private schools and teachers at the national level and for selected orientation groupings; national comparisons of elementary, secondary, and combined schools and teachers. SASS was first conducted in the 1987–1988 school year, and again in 1991, and at 2-year intervals thereafter.

Another component of SASS is the Teacher Followup Survey (TFS). It consists of a subsample of SASS, and is implemented 1 year after the base-year survey. The survey identifies and collects data from various groups of teachers who were interviewed the previous year: 1) those persons who remain in the teaching profession, including those who remain in the same school, as well as those who have moved; and 2) those persons who have left the teaching profession. These data will be used to provide information about teacher attrition and retention in the public and private schools and to project teacher demand during the 1990s.

Further information on this survey may be obtained from:

Daniel Kasprzyk
Elementary and Secondary Education Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, D.C. 20208-5653

National Institute on Drug Abuse
U.S. Department of Health and Human Services

The National Institute on Drug Abuse is the primary supporter of the long-term study entitled *Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth* conducted by the University of Michigan, Institute for Social Research. One component of the study deals with student drug abuse. Results of a national sample survey have been published annually since 1975. Approximately 125 to 135 schools have participated each year. With the exception of 1975 when about 9,400 students participated in the survey, more than 15,000 students have participated in the survey annually. For the class of 1990, about 15,200 students responded to the survey. Over the years, the response rate has varied from 77 to 84 percent.

The data in this survey represent only high school seniors. Understandably, there will be some reluctance to admit illegal activities. Also, students who were out of school on the day of the survey were nonrespondents. The survey did not include high school dropouts. The inclusion of these two groups would tend to increase the proportion of individuals who had used drugs. A 1983 study found that the inclusion of the absentees could increase some of the drug usage estimates by as much as 2.7 percent. (Details on that study and its methodology were published in *Drug Use Among American High School Students, College Students, and Other Young Adults*, by Lloyd D. Johnston, Patrick M. O'Malley, and Jerald G. Bachman, available from the National Clearinghouse on Drug Abuse Information, 5600 Fishers Lane, Rockville, MD 20857.)

Further information on this survey may be obtained from:

National Institute on Drug Abuse
Division of Epidemiology and
  Statistical Analysis
5600 Fishers Lane
Rockville, MD 20857

Office for Civil Rights
U.S. Department of Education

The Office for Civil Rights (OCR) in the U.S. Department of Education conducts periodic surveys of elementary and secondary schools to obtain data on the characteristics of students enrolled in public schools throughout the Nation. Racial/ethnic status, gender, limited English proficiency, and handicapping conditions are among the characteristics covered by recent surveys. Such information is required by OCR to fulfill its responsibilities under Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and section 504 of the Rehabilitation Act of 1973. The 1976 survey was a complete census of public school districts in the Nation. The 1984 and 1986 surveys were based on samples. The universe, from which the districts were to be sampled, was defined to be all public schools in the nation (50 states and the District of Columbia). A universe file maintained by the National Center for Education Statistics from its Common Core of Data was used. The selection factors used in selecting the sample were (1) minimum percent coverage of a specific population variable, and (2) maximum percent standard deviation of a projection of a population variable from the sample to the universe total.

Stratification also included district size and state. The 1984 survey was a stratified random sample of approximately 3,500 school districts, representing approximately 34,000 schools. For 1986, the sample included 3,455 districts, containing 37,313 schools. Both the 1984 and 1986 surveys are subject to sampling and nonsampling errors.

For further information about these surveys contact

Survey Branch, Office for Civil Rights
Lawrence Bussey
Room 5525, Switzer Building
330 C Street SW
Washington, DC 20202

Office of Special Education and Rehabilitative Services
U.S. Department of Education

Annual Report to Congress on the Implementation of the Education of the Handicapped Act

The Education of the Handicapped Act (EHA) requires the Secretary of Education to transmit to Congress annually a report describing the progress in serving the Nation's handicapped children. The annual report contains information on such children served by the public schools under the provisions of Part B of the EHA and for children served in State-operated programs (SOP) for the handicapped under Chapter I of the Education Consolidation and Improvement Act (ECIA). Statistics on children receiving special education and related services in various settings and school personnel providing such services are reported in an annual submission of data to the Office of Special Education and Rehabilitative Services (OSERS) by the

50 states, the District of Columbia, and the outlying areas. The child count information is based on the number of handicapped children receiving special education and related services on December 1 of each year for EHA and October 1 for Chapter I of ECIA/SOP.

Since each participant in programs for the handicapped is reported to OSERS, the data are not subject to sampling error. However, nonsampling error can occur from a variety of sources. Some states follow a noncategorical approach to the delivery of special education services but produce counts by handicapping condition only because EHA-B requires it. In those states that do categorize their handicapped students, definitions and labeling practices vary. In each case, even though states must use the federal definitions of the handicapping categories for reporting purposes, there is no way to judge the accuracy of these states' relabeling of their students for the federal count. Some states also have reported combined counts for some of the smaller categories of handicap.

These variations in labeling practices may help explain why there have been inconsistencies both year to year within a given state and from state to state in the ways in which students with more than one handicapping condition have been categorized. However, federal and state efforts to ensure that children are being classified and reported appropriately and efforts to achieve greater consistency in classification and reporting among states help minimize these variations.

Further information on the Annual Report to Congress may be obtained from:

Lou Danielson
Office of Special Education and
 Rehabilitative Services
Office of Special Education Programs
Room 3523, Switzer Building
330 C Street SW
Washington, DC 20202

2. Private Research and Professional Associations

American College Testing Program

The American College Testing (ACT) Assessment is designed to measure educational development in the areas of English, mathematics, social studies, and natural sciences. The ACT Assessment is taken by college-bound high school students and the test results are used to predict how well students might perform in college.

Prior to the 1984–85 school year, national norms were based on a 10 percent sample of the students taking the test. Since then, national norms have been based on the test scores of all students taking the test. Moreover, beginning with 1984–85 these norms have been based on the most recent ACT scores available from students scheduled to graduate in the spring of the year. Duplicate test records are no longer used to produce national figures.

Separate ACT standard scores are computed for English, mathematics, social studies, and natural science. ACT standard scores are reported for each subject area on a scale from 1 to 36. The four ACT standard scores have a mean (average) of about 19 and a standard deviation of about 6 for college-bound students nationally. A composite score is obtained by taking the simple average of the four standard scores and is an indication of student's overall academic development across these subject areas.

It should be noted that college-bound students who take the ACT Assessment are not representative in some respects of college-bound students nationally. First, students who live in the Midwest, Rocky Mountains and Plains, and the South are overrepresented among ACT-tested students as compared with college-bound students nationally. Second, ACT-tested students tend to enroll in public colleges and universities more frequently than do college-bound students nationally.

The 1990 ACT assessment is significantly different from previous years. Consequently, it is not possible to make direct comparisons between scores earned in 1990 and those scores earned in previous years. To permit continuity in tracking of score trends, ACT has established links between scores earned on ACT tests administered before October 1989 and scores on the new ACT. The 1990 data are based on 817,096 students who graduated from high school in the spring of 1990 and who took the ACT assessment on national test dates during their junior or senior year.

For further information, contact:

The American College Testing Program
2201 North Dodge Street
P.O. Box 168
Iowa City, IA 52243

College Entrance Examination Board

The Admissions Testing Program of the College Board comprises a number of college admissions tests, including the Preliminary Scholastic Aptitude Test (PSAT) and the Scholastic Aptitude Test (SAT). High school students participate in the testing program as sophomores, juniors, or seniors—some more than once during these 3 years. If they have taken the tests more than once, only the most recent scores are tabulated. The PSAT and SAT report subscores in the areas of mathematics and verbal ability.

The SAT results are not representative of high school students or college-bound students nationally since the sample is self-selected. Generally tests are taken by students who need the results to attend a particular college or university. The state totals are greatly affected by the requirements of its state colleges. Public colleges in a number of states require ACT scores rather than SAT scores. Thus the proportion of students taking the SAT in these states is very low and is inappropriate for any comparison. In recent years about 1 million high school students have taken the examination annually.

Further information on the SAT can be obtained from:

College Entrance Examination Board
Educational Testing Service
Princeton, New Jersey 08541

Gallup Poll

Each year the Gallup Poll conducts the "Public Attitudes Toward the Public Schools" survey, funded by Phi Delta Kappa. The survey includes interviews with approximately 1,600 adults representing the civilian noninstitutional population 18 years old and over.

The sample used in the 22nd annual survey was made up of a total of 1,594 respondents and is described as a modified probability sample of the Nation.

Personal, in-home interviewing was conducted in representative areas of the Nation and types of communities. Approximately 67 percent of the respondents had no children in school, 30 percent were parents of children in public schools, and 6 percent had children attending nonpublic schools. This total is greater than 100 percent because some parents had children attending both public and nonpublic schools.

The survey is a sample survey and is subject to sampling error. The size of error depends largely on the number of respondents providing data. For example, an estimated percentage of about 10 percent based on the responses of 1,000 sample members has an approximate sampling error of 2 percent at the 95 percent confidence level. The sampling error for the difference in two percentages (50 percent versus 41 percent) based on two samples of 750 members and 400 members, respectively, is about 8 percent.

Further information on this survey can be obtained from:

Gallup Poll
Phi Delta Kappa
P.O. Box 789
Bloomington, IN 47402-0789

National Education Association

Estimates of School Statistics

The National Education Association (NEA) reports revenues and expenditure data in its annual publication, *Estimates of School Statistics*. Each year NEA prepares regression-based estimates of financial and other education statistics and submits them to the states for verification. Generally about 30 states adjust these estimates based on their own data. These preliminary data are published by NEA along with revised data from previous years. States are asked to revise previously submitted data as final figures become available. The most recent publication contains all changes reported to the NEA.

Some tables in *The Condition of Education* use revised estimates of financial data prepared by NEA because it was the most current source. Since expenditure data reported to NCES must be certified for use in the U.S. Department of Education formula grant programs (such as Chapter I of the Education Consolidation and Improvement Act), NCES data are not available as soon as NEA estimates.

Further information can be obtained from:

National Education Association—Research
1201 16th Street NW
Washington, DC 20036

Other Organizational Sources

United Nations Educational, Scientific, and Cultural Organization

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) conducts annual surveys of education statistics of its member countries. Besides official surveys, data are supplemented by information obtained by UNESCO through other publications and sources. Each year more than 200 countries reply to the UNESCO surveys. In some cases, estimates are made by UNESCO for particular items such as world and continent totals. While great efforts are made to make them as comparable as possible, the data still reflect the vast differences among the countries of the world in the structure of education. While there is some agreement about the reporting of first- and second-level data, the third level (postsecondary education) presents numerous substantial problems. Some countries report only university enrollment while other countries report all postsecondary, including vocational and technical schools and correspondence programs. A very high proportion of some countries' third-level students attend institutions in other countries. While definition problems are many in this sort of study, other survey problems should not be overlooked. The member countries that provide data to UNESCO are responsible for their validity. Thus, data for particular countries are subject to nonsampling error and perhaps sampling error as well. Some countries may furnish only rough estimates while data from other countries may be very accurate. Other difficulties are caused by the varying periodicity of data collection among the countries of the world. In spite of such problems, many researchers use UNESCO data because they are the best available. Users should examine footnotes carefully to recognize some of the data limitations.

More complete information may be obtained from the Statistical Yearbook published by UNESCO or from:

Office of Statistics
UNESCO
Place de Fontenoy
75700 Paris, France

Average daily attendance (ADA): The aggregate attendance of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered as days in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

Carnegie unit: A standard of measurement that represents one credit for the completion of a 1-year course.

Catholic school: (See Orientation)

Class size: The membership of a class at a given date.

Cohort: A group of individuals who have a statistical factor in common, for example, year of birth.

Combined elementary and secondary school: A school that encompasses instruction at both the elementary and the secondary levels. Examples of combined elementary and secondary school grade spans would be 1 through 12 or 5 through 12.

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer price index (CPI): This price index measures the average change in the cost of a fixed market basket of goods and services purchased by consumers.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures (elementary/secondary): The expenditures for operating local public schools excluding capital outlay and interest on school debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs. Beginning in 1980–81, expenditures for state administration are excluded.

Current expenditures per pupil in enrollment: Current expenditures for the regular school term divided by the total number of students registered in a given school unit at a given time, generally in the fall of a year. See also Current expenditures and enrollment.

Educational attainment: The highest grade of regular school attended and completed.

Elementary school: A school classified as elementary by state and local practice and composed of any span of grades not above grade 8. A preschool or kindergarten school is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Elementary/secondary school: As reported in this publication, includes only regular school, i.e., schools that are part of state and local school systems, and also most not-for-profit private elementary/secondary schools, both religiously affiliated and nonsectarian. Schools not reported include subcollegiate departments of institutions of higher education, residential schools for exceptional children, federal schools for Indians, and federal schools on military posts and other federal installations.

English: A group of instructional programs that describes the English language arts, including composition, creative writing, and the study of literature.

Enrollment: The total number of students registered in a given school unit at a given time, generally in the fall of a year.

Expenditures: Charges incurred, whether paid or unpaid, which are presumed to benefit the current fiscal year. For elementary/secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For institutions of higher education, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, extension of credit, or as agency transaction. Government expenditures include only external transactions, such as the provision of perquisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions among the governments.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as enrollment, average daily attendance or average daily membership.

Fiscal year: The yearly accounting period for the federal government, which begins on October 1 and ends on the following September 30. The fiscal year is designated by the calendar year in which it ends; e.g., fiscal year 1990 begins on October 1, 1989, and ends on September 30, 1990. (From fiscal year 1844 to fiscal year 1976 the fiscal year began on July 1 and ended on the following June 30.)

Foreign languages: A group of instructional programs that describes the structure and use of language that is common or indigenous to people of the same community or nation, the same geographical area, or the same cultural traditions. Programs cover such features as sound, literature, syntax, phonology, semantics, sentences, prose, and verse, as well as the development of skills and attitudes used in communicating and evaluating thoughts and feelings through oral and written language.

Full-time worker: In educational institutions, an employee whose position requires being on the job on school days throughout the school year at least the number of hours the schools are in session. For higher education, a member of an educational institution's staff who is employed full time.

General program: A program of studies designed to prepare students for the common activities of a citizen, family member, and worker. A general program of studies may include instruction in both academic and vocational areas.

Geographic region: One of four regions used by the Bureau of the Economic Analysis of the U.S. Department of Commerce, the National Assessment of Educational Progress, and the National Education Association, as follows: (The National Education Association designated the Central region as Middle region in its classification.)

Northeast

Connecticut
Delaware
District of Columbia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Southeast

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Mississippi
North Carolina
South Carolina
Tennessee
Virginia
West Virginia

Central (Middle)

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

West

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oklahoma
Oregon
Texas
Utah
Washington
Wyoming

Gross domestic product (GDP): Gross national product less net property income from abroad. Both gross national product and gross domestic product aggregate only the incomes of residents of a nation, corporate and individual, deriving directly from the current production of goods and services. However, gross national product also includes net property from abroad. See also Gross national product.

Gross national product (GNP): A measure of the money value of the goods and services available to the nation from economic activity. GNP can be viewed in terms of expenditure categories which include purchases of goods and services by consumers and government, gross private domestic investment, and net exports of goods and services. The goods and services included are largely those bought for final use (excluding illegal transactions) in the market economy. A number of inclusions, however, represent imputed values, the most important of which is rental value of owner-occupied housing. GNP, in this broad context, measures the output attributable to the factors of production—labor and property—supplied by U.S. residents.

Handicapped: Those children evaluated by the states as having any of the following impairments, who because of these impairments need special education and related services. (These definitions apply specifically to data from the U.S. Office of Special Education and Rehabilitative Services presented in this publication.)

Deaf: Having a hearing impairment which is so severe that the student is impaired in processing linguistic information through hearing (with or without amplification) and which adversely affects educational performance.

Deaf-blind: Having concomitant hearing and visual impairments which cause such severe communication and other developmental and educational problems that the student cannot be accommodated in special education programs solely for deaf or blind students.

Hard of hearing: Having a hearing impairment, whether permanent or fluctuating, which adversely affects the student's educational performance but which is not included under the definition of "deaf" in this section.

Mentally retarded: Having significantly subaverage general intellectual functioning, existing concurrently with defects in adaptive behavior and manifested during the developmental period, which adversely affects the child's educational performance.

Multihandicapped: Having concomitant impairments (such as mentally retarded-blind, mentally retarded-orthopedically impaired, etc.), the combination of which causes such severe educational problems that the student cannot be accommodated in special education programs solely for one of the impairments. Term does not include deaf-blind students but does include those students who are severely or profoundly mentally retarded.

Orthopedically impaired: Having a severe orthopedic impairment which adversely affects a student's educational performance. The term includes impairment resulting from congenital anomaly, disease, or other causes.

Other health impaired: Having limited strength, vitality, or alertness—due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes—which adversely affects the student's educational performance.

Seriously emotionally disturbed: Exhibiting one or more of the following characteristics over a long period of time, to a marked degree, and adversely affecting educational performance: an inability to learn which cannot be explained by intellectual, sensory, or health factors; an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; inappropriate types of behavior or feelings under normal circumstances; a general pervasive mood of unhappiness or depression; or a tendency to develop physical symptoms or fears associated with personal or school problems. This term does not include children who are socially maladjusted, unless they also display one or more of the listed characteristics.

Specific learning disabled: Having a disorder in one or more of the basic psychological processes involved in understanding or in using spoken or written language, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or environmental, cultural, or economic disadvantage.

Speech impaired: Having a communication disorder, such as stuttering, impaired articulation, language impairment, or voice impairment, which adversely affects the student's educational performance.

Visually handicapped: Having a visual impairment which, even with correction, adversely affects the student's educational performance. The term includes partially seeing and blind children.

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, 12 (in a 6-3-3 plan) or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

High school program: A program of studies designed to prepare students for their postsecondary education and occupation. Three types of programs are usually distinguished—academic, vocational, and general. An academic program is designed to prepare students for continued study at a college or university. A vocational program is designed to prepare students for employment in one or more semiskilled, skilled, or technical occupations. A general program is designed to provide students with the understanding and competence to function effectively in a free society and usually represents a mixture of academic and vocational components.

Inflation: An upward movement in general price levels that results in a decline of purchasing power.

Instructional staff: Full-time-equivalent number of positions, not the number of different individuals occupying the positions during the school year. In local schools includes all public elementary and secondary (junior and senior high) day-school positions that are in the nature of teaching or in the improvement of the teaching-learning situation. Includes consultants or supervisors of instruction, principals, teachers, guidance personnel, librarians, psychological personnel, and other instructional staff. Excludes administrative staff, attendance personnel, clerical personnel, and junior college staff.

Junior high school: A separately organized and administered secondary school intermediate between the elementary and senior high schools, usually including grades 7, 8, and 9 (in a 6-3-3 plan) or grades 7 and 8 (in a 6-2-4 plan).

Labor force: Persons employed as civilians, unemployed, or in the armed services during the survey week. The "civilian labor force" comprises all civilians classified as employed or unemployed.

Local education agency: See School district.

Mathematics: A group of instructional programs that describes the science of logical symbolic language and its application.

Metropolitan population: The population residing in metropolitan statistical areas (MSA's). See Metropolitan statistical area.

Metropolitan Statistical Area (MSA): A large population nucleus and the nearby communities which have a high degree of economic and social integration with that nucleus. Each MSA consists of one or more entire counties (or county equivalents) that meet specified standards pertaining to population, commuting ties, and metropolitan character. In New England, towns and cities, rather than counties, are the basic units. MSAs are designated by the Office of Management and Budget. An MSA includes a city and, generally, its entire urban area and the remainder of the county or counties in which the urban area is located. A MSA also includes such additional outlying counties which meet specified criteria relating to metropolitan character and level of commuting of workers into the central city or counties. Specified criteria governing the definition of MSAs recognized before 1980 are published in **Standard Metropolitan Statistical Areas: 1975**, issued by the Office of Management and Budget.

New MSAs were designated when 1980 counts showed that they met one or both of the following criteria:

- Included a city with a population of at least 50,000 within their corporate limits, or

- Included a Census Bureau-defined urbanized area (which must have a population of at least 50,000) and a total MSA population of at least 100,000 (or, in New England, 75,000).

Minimum-competency testing: Measuring the acquisition of competence or skills to or beyond a certain specified standard.

Modal grade: The modal grade is the year of school in which the largest proportion of students of a given age is enrolled. Enrolled persons are classified according to their relative progress in school, that is, whether the grade or year in which they were enrolled was below, at, or above the modal (or typical) grade for persons of their age at the time of the survey.

Nonmetropolitan residence group: The population residing outside metropolitan statistical areas. See metropolitan statistical area.

Nonresident alien: A person who is not a citizen of the United States and who is in this country on a temporary basis and does not have the right to remain indefinitely.

Nonsupervisory instructional staff: Persons such as curriculum specialists, counselors, librarians, remedial specialists, and others possessing education certification but not responsible for day-to-day teaching of the same group of pupils.

Orientation (private school): The group or groups, if any, with which a private elementary/secondary school is affiliated, or from which it derives subsidy or support:

Catholic school: A private school over which a Roman Catholic church group exercises some control or provides some form of subsidy. Catholic schools for the most part include those operated or supported by: a parish, a group of parishes, a diocese, or a Catholic religious order.

Other religious school: A private school affiliated with an organized religion or denomination other than Roman Catholicism or which has a religious orientation other than Catholic in its operation and curriculum.

Nonsectarian school: A private school whose curriculum and operation are independent of religious orientation and influence in all but incidental ways.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits, military pensions, etc., but excludes transfers among persons.

Preprimary school: A separately organized and administered elementary school for pupils in the year or years preceding the first grade. This may include pupils in prekindergarten and kindergarten years or grades.

Pupil/teacher ratio: The enrollment of pupils at a given period of time, divided by the full-time-equivalent number of classroom teachers serving these pupils during the same period.

Racial/ethnic group: Classification indicating general racial or ethnic heritage based on self-identification, as in data collected by the Bureau of the Census, or on observer identification, as in data collected by the Office for Civil Rights. These categories are in accordance with the Office of Management and Budget standard classification scheme presented below:

> **White**: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. Normally excludes persons of Hispanic origin except for tabulations produced by the Bureau of the Census, which are noted accordingly in this volume.
>
> **Black**: A person having origins in any of the black racial groups in Africa. Normally excludes persons of Hispanic origin except for tabulations produced by the Bureau of the Census, which are noted accordingly in this volume.
>
> **Hispanic**: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
>
> **Asian or Pacific Islander**: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.
>
> **American Indian or Alaskan Native**: A person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition.

Revenues: All funds received from external sources, net of refunds, and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts "in kind" are excluded as are funds received from the issuance of debt, liquidation of investments, and nonroutine sale of property.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

School climate: The social system and culture of the school, including the organizational structure of the school and values and expectations within it.

School district: An education agency at the local level that exists primarily to operate public schools or to contract for public school services. Synonyms are "local basic administrative unit" and "local education agency."

School year: The 12-month period of time denoting the beginning and ending dates for school accounting purposes, usually from July 1 through June 30.

Science: The body of related courses concerned with knowledge of the physical and biological world and with the processes of discovering and validating this knowledge.

Secondary school: A school comprising any span of grades beginning with the next grade following an elementary or middle-school (usually 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Senior high school: A secondary school offering the final years of high school work necessary for graduation and invariably preceded by a junior high school.

Social studies: A group of instructional programs that describes the substantive portions of behavior, past and present activities, interactions, and organizations of people associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes.

Staff assignments, elementary and secondary school:

> **District administrators**: The chief executive officers of education agencies (such as superintendents and deputies) and all others with district-wide responsibility. Such positions may be business managers, administrative assistants, coordinators and the like.

District administrative support staff: Those personnel that are assigned to the staffs of the district administrators. They may be clerks, computer programmers and others concerned with the functioning of the entire district.

Guidance counselors: Professional staff whose activities involve counseling with students and parents, consulting with other staff members on learning problems, evaluating the abilities of students, assisting students in personal and social development, providing referral assistance, and working with other staff members in planning and conducting guidance programs for students.

Instructional (teacher) aides: Those staff members assigned to assist a teacher with routine activities associated with teaching (i.e., those activities requiring minor decisions regarding students, such as monitoring, conducting rote exercises, operating equipment, and clerking). Volunteer aides are not included in this category.

Librarians: Staff members assigned to perform professional library service activities such as selecting, acquiring, preparing, cataloging, and circulating books and other printed materials; planning the use of the library by students, teachers and other members of the instructional staff; and guiding individuals in their use of library books and materials, which are maintained separately or as part of an instructional materials center.

Other support services staff: All staff not reported in other categories. This group includes media personnel, social workers, data processors, health maintenance workers, bus drivers, security cafeteria workers, and other staff.

School administrators: Those staff members whose activities are concerned with directing and managing the operation of a particular school. They may be principals or assistant principals, including those who coordinate school instructional activities with those of the local education agency (LEA) and other appropriate units.

Vocational education: Organized educational programs, services, and activities which are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career, requiring other than a baccalaureate or advanced degree.

Year-round, full-time worker: One who worked primarily at full-time civilian jobs for 50 weeks or more during the preceding calendar year.

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